KING GOODS TO SPECIFICATION
materials used must be just right.
rise there will be trouble. Consult the
t *before* making the goods, and thus
rouble.
D'K J. MAYWALD, F.C.S.,
CONSULTING CHEMIST
Street 'Phone, 823 John New York

NOT A "Cravenette" RAIN COAT
UNLESS THIS CIRCULAR REGISTERED TRADE-MARK IS STAMPED ON THE INSIDE.
REG'D Cravenette TRADE MARK.

INDIA RUBBER WORLD

CAOUTCHOUC — HEVEA BRASILIENSIS — GUTTA-PERCHA

Edited by HENRY C. PEARSON—Offices, No. 395 Broadway, NEW YORK.

Vol. XLIII. No. 2. NOVEMBER 1, 1910. 35 CENTS. $3.00 Per Year. $3.50 Abroad.

AGENCIES
GORHAM RUBBER CO., 50-56 Fremont St., SAN FRANCISCO, CAL.
GORHAM RUBBER CO., 818 South Broadway, LOS ANGELES, CAL.

AGENCIES
DENVER RUBBER CO., 1433-1435 Lawrence St., DENVER, COLO.
GORHAM RUBBER CO., 320 1st Ave., South, SEATTLE, WASH.

"THE DISTINCTIVE LINE"

Faultless

RUBBER SUNDRIES AND SPECIALTIES

(SEAMLESS, HANDMADE AND MOULDED.)

The Faultless Rubber Company

ASHLAND, OHIO

NEW YORK OFFICE
101 FIFTH AVENUE

CHICAGO OFFICE
GARDNER BLDG., 171-173 RANDOLPH ST.

RUBBER COVERED WIRES AND CABLES Hudson Terminal, 30 Church St. NEW YORK

BRISTOL'S RECORDING THERMOMETERS
Extensively used in connection with rubber vulcanizers and heaters.

LAMPBLACKS ESPECIALLY FOR RUBBER MANUFACTURE
SAMUEL CABOT, BOSTON, MASS.

MARK OF QUALITY

ESTABLISHED 1884

SPECIAL ATTENTION GIVEN TO EXPORT BUSINESS. CORRESPONDENCE AND INQUIRIES SOLICITED.

The Canadian Rubber Co. of Montreal

MANUFACTURERS OF LIMITED

ALL KINDS OF HIGH GRADE GENERAL RUBBER GOODS

AND SOLE MAKERS OF THE

Celebrated "CANADIAN" Rubbers

We are always open to correspond with experienced Rubber men, both for Factory and Executive Work.

Factory and Executive Offices:
MONTREAL, P. Q.

Inventions kindred to the Trade and ideas for development, invited. Our Development Department gives these matters special attention.

Canadian Sales Branches HALIFAX, N. S., MONTREAL, Que., TORONTO, Ont., WINNIPEG, Man., REGINA, SASK., CALGARY, Alta., VANCOUVER, B. C., VICTORIA, B. C.

D. LORNE McGIBBON, President. F. H. WARD, General Manager. W. BINMORE, Manager Footwear Dept. F. E. PARTRIDGE, Manager Mechanical Goods. LEONARD D. SHAW, Secretary-Treasurer.

We are making a

SUBSTITUTE FOR RUBBER

which is a vegetable oil compound containing no mineral and which will

Vulcanize at the SAME degree of temperature as rubber and which gives

FIRMNESS, TENACITY, DUCTILITY, AND CONTINUED RESISTANCE TO OXIDATION

NATIONAL CO.

1404 Clybourn Place - Chicago, Ill.

WHENEVER, WHEREVER YOU SEE THIS TRADE-MARK YOU CAN DEPEND ON

Quality
Uniformity
Quality

K&B

Efficiency
Quality
Character

Characteristic of the Chemicals offered by

Katzenbach & Bullock Co.

INCORPORATED

New York: 100 William St. Trenton: Broad Street Bank Bldg.

The Whitehead Brothers Rubber Co.

MANUFACTURERS OF

High Grade Mechanical Rubber Goods
"Long Life" Steam Hose
Vacuum Cleaning Hose
Suction Hose for all purposes
Water Hose, Belting, Packings
Springs, Valves, etc.

TRENTON, N. J.

Percival Dove, Pres. & Treas. E. R. Barton, V.-Prest. & Gen. Mgr.

Dove Machine Co., Inc.

LAWRENCE, MASS.

LET US QUOTE YOU ON

Moulds and Models of all kinds	Novo Steel Knives, Plain & Fluted
Bulb Models, Shells and Clamps	Tobacco Pouch Blocks, Rings and Formers
Heater Cars, Pans and Racks	Aluminum Pans, Bag Formers
Tube Pans, Dies and Cores	Seamless Pouch Blocks
Calender Winders and Trimmers	

ANYTHING IN THE RUBBER MACHINERY LINE

ALL INQUIRIES GIVEN IMMEDIATE ATTENTION
WE CAN SAVE YOU MONEY

QUALITY

Runs Our Factory
Day and Night

CONVERSE RUBBER SHOE COMPANY

MALDEN, MASS.

Sales Office: 50 High St., Boston

INDIA RUBBER WORLD

CAOUTCHOUC GUTTA-PERCHA

Published on the 1st of each Month by

THE INDIA RUBBER PUBLISHING CO.,

No. 395 BROADWAY, NEW YORK.

CABLE ADDRESS: IRWORLD, NEW YORK.

HENRY C. PEARSON, EDITOR. HAWTHORNE HILL, ASSOCIATE.

Vol. 43. NOVEMBER 1, 1910. No. 2.

SUBSCRIPTIONS: $3.00 per year, $1.75 for six months, postpaid, for the United States and dependencies and Mexico. To the Dominion of Canada and all other countries, $3.50 (or equivalent funds) per year, postpaid.

ADVERTISING: Rates will be made known on application.

REMITTANCES: Should always be made by bank or draft, Postoffice or Express money orders on New York, payable to THE INDIA RUBBER PUBLISHING COMPANY. Remittances for foreign subscriptions should be sent by International Postal Order, payable as above.

DISCONTINUANCES: Yearly orders for subscriptions and advertising are regarded as permanent, and after the first twelve months they will be discontinued only at the request of the subscriber or advertiser. Bills are rendered promptly at the beginning of each period, and thereby our patrons have due notice of continuance.

COPYRIGHT, 1910, BY THE INDIA RUBBER PUBLISHING CO.

Entered at New York postoffice as mail matter of the second class.

TABLE OF CONTENTS ON LAST PAGE READING MATTER.

TO SOLVE THE "CASTILLOA" PROBLEM.

WITH the planting of rubber trees has come a demand for practical and scientific methods of collecting and coagulating the latex. By hundreds of experiments extending over a score of years the tapping of plantation rubber has advanced far beyond the *machete* and the *machadinho*. Particularly has this experimentation centered about the great rubber plantations in the Far East.

The wonderful productiveness of the Pará rubber tree (*Hevea Brasiliensis*) there is due not only to the presence of wound response, but a knowledge of how to tap day after day without injury to the tree. So far the *Hevea* is the only tree that has shown wound response. The others—*Castilloas*, *Funtumias*, and so on—nearly all contain primarily much more latex than does the *Hevea*. What is demanded, therefore, is a simple economical method which will extract the maximum amount of latex from such trees at one time, allowing the tree to rest as long as nature requires before the second tapping.

That this important problem may be brought to the attention of those interested in *Castilloa* culture and be solved, THE INDIA RUBBER WORLD will present at the International Rubber Exhibition in London, 1911, a handsome and valuable trophy to whomsoever may come the nearest to solving it. This cup, which is illustrated and described on another page, is offered specifically for the solution of the *Castilloa* problem. It is well to remember, however, that if this is satisfactorily solved, a new value will be placed upon the *Sapium, Funtumia, Ficus* and gutta-perchas of all kinds—including jelutong—as well as the *Castilloa Ulei*.

Millions of dollars have been expended in the planting of *Castilloa* in Mexico and Central America, in the West Indies, and even in South America. Planting is still going on. There are climates, soils and conditions for which this tree is especially fitted, and where it thrives better than any other. To-day what tapping is done is either by the crude and destructive native methods, or by methods that are imitations of those followed in the Far East.

It is in the hope and expectation that precedents may be ignored, imitations abandoned and inventiveness and originality called upon that THE INDIA RUBBER WORLD by means of its trophy draws attention to a vital problem in rubber culture.

FOOD AND AMAZON RUBBER.

THE building of the Madeira-Mamoré railway, to reach the rich rubber fields of Bolivia, is in itself a most important undertaking, but what may prove of even more concern to the world is the influence which the sanitation work installed in connection with it may have in tropical America as a whole. Not only this, but the whole rubber trade of the world may in the end benefit from the work now centered in the Madeira-Mamoré construction camps, which camps, by the way, have lately been described in some detail in THE INDIA RUBBER WORLD.

It is no secret that the high cost of rubber from the Amazon has been due largely to the sparse population of that region, and the fact that conditions of life there have been most unattractive to European laborers. Not the least unfavorable condition has been the difficulty of acquiring food of a suitable character and at reasonable prices.

A recent issue of the Porto Velho *Marconigram* devotes most of its space to the question of food supplies in the railway construction camps, where more than 4,000 men are employed, most of whom are from other countries and a number of them professional engineers. It is pointed out in this paper that satisfactory food conditions prevail already, and that there is a continued improvement in this respect. Fresh beef is served to all the camps, being slaughtered and dressed at Porto Velho. An ice making plant is operated successfully. While the vegetables used have been derived in canned shape from the United States, the *Marconigram* mentions: "Lately we have been getting fresh vegetables from a farm about a day's sail down the river and from present indications this farm will probably be able to supply quite a quantity of fresh vegetables. Eggs are brought in by the natives."

It must be taken into account that the successful sanitation and satisfactory food supply at Porto Velho have been due to the work in progress there being on a large scale and under capable scientific and financial control. If each engineer and dirt digger had to look out for himself probably the enterprise would have ended long ago in disaster. The lesson for the rubber interest in South America is the reorganization of rubber camps on a large scale instead of the work being conducted by *seringueros* singly or in small groups. This change, by the way, is already in progress, and it is reasonable to suppose from indications already apparent that ultimately the food supplies on the better *seringaes* in the Amazon basin will compare favorably with those on farms in the United States. When this new régime becomes better established it is not to be doubted that rubber supplies will be increased, and the cost to consumers materially lessened, while still yielding an adequate profit to the producers.

THE AMERICAN MACKINTOSH TRADE.

TIME was when every lady wore a gossamer waterproof, and the hillsides about the proofing factories were covered with solarizing tables. The business was big and competition was fierce. In spite of agreements and associations prices went down until rubber garments brought about the price of the unproofed cloth. But all of a sudden the garments went out of fashion.

Then came the mackintosh, and that was overdone, and the fickle public got sick of it. For some reason or other rubber surfaced clothing got a black eye, and the business fell off. The result was that the plungers, the people who wanted volume rather than profits and those who had but little capital, dropped these lines and sought others. There were those, however, who made a certain quantity of good goods. Year by year they supplied the market, doing a fair business at a fair profit, and, as it should, the public is begining to appreciate them.

The old-time gossamer has been replaced by light, well-made, well-fitting coats, lightly coated with rubber on the calender and vulcanized, not solarized. Sometimes the thin coating of rubber is on the surface; sometimes the outside is fabric, with the rubber inside. The mackintosh manufacturer has called in the cloak cutter and the ladies' tailor, and style and fit are beyond criticism. As for the rubber coat, nothing ever really took its place and it has come into its own again.

This is why the proofing plants are busy everywhere, and the mackintosh and clothing departments in the rubber factories are working full time.

IS SENATOR ALDRICH IN THIS?

THOSE American newspapers whose conductors appear so susceptible to pain in the stomach at any indication of prosperity in their own country—always suspecting the same to be due to tinkering with the tariff by some man in public life—are in danger from apoplexy if they should happen to see some recent reports on the Congo rubber trade. Happily we may be spared any such unfortunate experience, since what has developed in this school of journalism in reference to the Bristow-Aldrich dispute over crude rubber suggests astigmatism among the editors wherever ordinary business facts are involved, however clearly they may be able to read a baseball score.

We all know how the New York *World* type of newspapers went up in the air when a company in the business of producing crude rubber in Mexico began, after several years, to pay dividends at the rate of 7 per cent. a year. But now comes the Compagnie du Kasai, a Belgian concern trading in African crude rubber, with a dividend of 520 per cent. on the common stock for the last year, after having paid comfortable dividends on its preferred and common stock during all the preceding years. It may be mentioned, incidentally, that the net profits of the Kasai company during its eight years of existence have totaled $6,174,447, and the capital stated is only about $193,965. This would work out at an average annual return of about forty times the original investment.

Can it be that Senator Aldrich, while busying himself with the tariff at Washington, has also been controlling the fiscal affairs of Belgium? How else could the crude rubber business in that country be so profitable?

IS THIS A NEW "RUBBER TRUST"?

THE able Philadelphia *Record*, without giving any details to enable its readers to verify such interesting statements, delivers itself as follows:

> A rubber trust has been formed, which, extending in operations from the growing of rubber trees to the making of rubber goods, makes the consumer pay all the traffic will bear. There should be a heavy and immediate reduction in the tariff duties on rubber goods. As the matter stands, consumers are unmercifully fleeced solely for the benefit of the trust. The government treasury gets little or no benefit.

Why doesn't the *Record* help the public by putting its facts before the "government treasury"?

The able Fort Fairfield (Maine) *Review* also might benefit "the plain people in this country and other countries" by showing its hand. Here is what the *Review* says:

> The price of india-rubber has doubled in the past year. The great demand for rubber in making automobile tires is a principal reason for this advance, but the fact that rubber now is mostly controlled by a trust is also a powerful cause in the advance. How long will the plain people in this country and other countries submit to robbery by the favored few controlling the trusts?

How does it benefit the editors of our esteemed daily contemporaries to keep concealed under their hats such momentous information, the revelation of which might prove helpful to so many people?

SOMEBODY HAVING STARTED A REPORT ONE DAY of the failure of the rubber plantation at Santarem, up the Amazon, and no attempt having been made to contradict it, the story is still going the rounds, making a convenient "filler" for those travelers who write their observations without taking the trouble

to verify anything. The Santarem plantation is a private enterprise, formed by Americans—the Riker brothers—who landed in Brazil with limited capital, and who went into rubber planting against the judgment of all their neighbors. One indication of their success is the sale of part of their property to a $500,000 London company, whose prospectus enlarges upon the merits of the Santarem district as a field for rubber planting, as demonstrated by results already attained. It may be of interest to recall that all the *Hevea* planted in the Far East is derived from the original seeds collected by Mr. Wickham from up the Amazon, the native habitat of this species. Mr. Wickham, by the way, had back of him the inexhaustible resources of a great government. There is no telling what the results might have been had Mr. Riker, instead of his limited private resources, been supported by such powerful influences as were at the command of Mr. Wickham. At any rate the American experiment in rubber planting at Santarem is of much interest, and our readers, we are sure, will be pleased to read the report on it which appears in another part of this paper.

WELLMAN'S FAILURE TO CROSS THE ATLANTIC in his dirigible balloon has one point of interest for the rubber industry. One more rubber enveloped flying apparatus has been lost, and somebody is sure to order another in its place, whether or not the purpose is to cross the ocean. Count Zeppelin's disasters in Germany, however regrettable in themselves, have given little regret to the rubber companies, who have been called upon repeatedly to supply fabrics for new dirigibles for the doughty adventurer. On the other hand, when we begin to have flying machines that will last a lifetime, the cost of crude rubber may fall still lower.

WHY DO CANADIAN CONSUMERS OF RUBBER GOODS prefer a high tariff on imports to a lower tariff? The question is suggested by the tables of Canadian imports on another page, showing how much more rubber goods are bought from the United States than from Great Britain, in spite of the lower tariff on imports of British origin.

AMONG THE ADVERTISEMENTS MOST PROMINENTLY DISPLAYED in the able *Far Eastern Review* is that of "The Westinghouse Broke Co." offering air brakes. People on this side of the globe had been given to understand that the Westinghouse company, though lately in the hands of the receivers, were no longer "broke."

IT IS INTERESTING TO LEARN from the latest annual report of the Canadian department of customs that the exports from the Dominion included, under the heading "Goods Not the Produce of Canada," one automobile to the Fiji Islands, of the value of $186. Wonder if any "sporty" Fijian is planning to compete for the Vanderbilt Cup.

DISTINGUISHING RUBBER GRADES.

ORDERS for rubber goods often call for Pará in the composition. Hitherto it has been impossible to prove the presence of this grade. The percentage of resin is usually relied upon to settle this point, Pará giving the lowest figure for this determination. Hinrichsen und Kindscher [*Chemische Zeitung*, XXXIV, No. 27] have discovered, however, that in rubber goods made from Pará to which a small amount of ceresin has been added, the resin figure is abnormally high. Experiments by them show that the resin figure for fine Pará increases two per cent. when vulcanized with 10 per cent. sulphur and 3 per cent. ceresin. In order to find whether the curing was responsible for this increase, they heated a mixture of rubber and 5 per cent. ceresin, but without sulphur, in the same way as in the previous experiment. Again an increase of resin of over 10 per cent. was noticed. The resin figure is, therefore, not reliable as a means of judging the grade of rubber. The authors prefer to use for this purpose the test for optical activity of the resins. Of all the rubber resins those from Pará and Ceylon rubbers are alone inactive. This holds true for rubber, both in unvulcanized and vulcanized condition, and the activity is shown by the unsaponifiable portion of the resins only. Hence, if the unsaponifiable portion of the resins extracted from the compound, dissolved in benzol and examined in a polariscope give a reading of O°, it is fair to assume that a Pará or a Ceylon rubber has alone been used in the composition. F. J. MAYWALD.

NEXT YEAR'S AUTOMOBILE PRODUCTION.

IN view of the persistent circulation of rumors to the effect that the prosperity of the country was being menaced by the purchase of automobiles by many persons not able to afford these vehicles, and particularly that many were mortgaging their properties in order to buy machines, Mr. Benjamin Briscoe, president of the United States Motor Co., wrote to 24,000 bankers in the United States asking for details bearing upon this subject. He reports in *Leslie's Weekly* (New York, October 13) having received replies from 5,254 bankers, who reported 198,216 automobiles in their cities and towns. Of these only 1,254 have been purchased by the placing of mortagages and only 7,475 have been bought with borrowed money without mortgages. Mr. Briscoe adds:

"The sale of automobiles will increase during 1911 over that of 1910, in the opinion of 3,653 bankers; while 1,601 are of the opinion that sales will not increase in their localities. The latter, however, are bankers in the small towns, where the increase in population is small, which probably accounts, in part, for their opinion. Many of these letters speak in glowing terms of the various business purposes to which the automobile is applied. The bankers report that a large percentage of so-called pleasure cars are used for business purposes, such as physicians, real-estate dealers, farmers, contractors, the bankers themselves and other business men. The bankers do not hesitate to say that they consider automobiles helpful not only in ways of recreation but in business as well."

* * *

SAID an observant tire manufacturer to a representative of THE INDIA RUBBER WORLD: "The continued reports that fewer automobiles will be made next season, and that the tire business will therefore be much smaller, has to my mind no basis in fact. Last year most of the automobile factories reported in advance how many cars they would produce, and many of them exaggerated by one-half at least. The company planning to turn out 40,00 cars actually produced 20,000. This year they are saying that they will produce 20,000; and that is what they will do. As I see it, the 1911 product will be just about the same as that of 1910, so for new tires and replacements there will be a demand for even more tires than were sold in 1910. There is another feature which promises a big business. The small, light, cheap car of the runabout type has been wonderfully perfected. It is now within the reach of any man who can afford a horse and buggy, and he will buy and have no need to mortgage his home, either."

A MASSEUR recently raised his charges. Asked for a reason, he replied that he had thought it was well known that rubbers had had a boom and were in great request.

As we go to press it is rumored that a substitute for rubber has at last been discovered. It was found in a city restaurant, and was served up as a steak.—*Punch.*

JOHN HINCHLEY HART.

THE portrait on this page is that of the well-known head of the Trinidad botanical garden for so many years, who, though having retired from that position, continues active private work in the field to which he has devoted his life. Born on a farm in East Anglia, the subject of this notice was sent for his early training to a grammar school established by Lord Keeper Bacon, in the town of Botesdale, Suffolkshire, England.

A few years later he was making his way in London horticultural establishments, notably those of Lee & Veitch. He was next to be found in Nova Scotia, engaged in landscape and horticultural work, being one of the first to export Canadian apples to England. Returning to the old country in 1875, he was sent out in that year to join the staff of the government agricultural-horticultural department of the island of Jamaica. Here his landscape practice proved useful, and the newly acquired lands adjoining the residence of the Governor of that colony were placed in his charge.

JOHN HINCHLEY HART, F.L.S.

Next he assumed charge of the government *Cinchona* plantation, which at that date was sending into the markets all species from the delicate *C. calisaya* to the hardy *C. officinalis* of the pharmacies. His spare time was devoted to the botanical exploration of the colony, and the pages of Urban's West Indian compilations show the extent of the work he carried out, and the number of new species he added to the flora.

In 1887 Mr. Hart was sent to Trinidad as superintendent of the Royal Botanic Garden of that island, with instructions to push the new agriculture to its limit. After twenty years' work the establishment had increased to nearly three times its original size, and its reputation had become firmly fixed as among the first of its class in the world. Mr. Hart retired on the maximum pension in 1908, after which he purchased a house within sight of the botanical garden and opened an office as an expert adviser in tropical agriculture. Here the editor of THE INDIA RUBBER WORLD met him on returning from the Amazon.

Mr. Hart maintained and edited the *Bulletin* of the Trinidad botanical department, which dealt with general botanical matters, for more than twenty years, in a manner which secured for him the best exchanges of the day. In addition, he has written a standard work on cacao, which he has taken up as a specialty, besides editing a volume on the "Ferns of the West Indies" of some 420 pages. He is a prolific writer on current topics in tropical agriculture, especially those connected with fungus diseases, so destructive to tropical vegetation, and has taken a high place among students of this class of plants.

As a general all around man, it was hard to find his equal, while in special studies, on account of his mastery of his subjects, he has been placed, by some of the best authorities, on classical record. For many years he was associated with the Hon. Sir Daniel Morris, K. C. M. G., D. SC., etc., while the latter was Imperial commissioner of agriculture for the West Indies.

ADVANCE OF THE MOTOR TRUCK.

THE commercial motor vehicle is rapidly coming into its own. As mentioned already in THE INDIA RUBBER WORLD, the annual automobile show at Madison Square Garden next January will exclude commercial vehicles, but the Garden will be filled during the following week with a show under the same management devoted to motor trucks alone. Could there be better evidence of the growth in importance of the commercial motor car trade?

The progress in this new field is of importance both to the rubber tire manufacturer and the producer of rubber, whether in forest or on plantations. Business men have been studying the cost of motor vehicle service as compared with horse-drawn vehicles—and the days of horses in city street traffic are numbered. Using horses to haul freight through the streets will soon be regarded as uneconomical as walking up twenty flights of stairs to one's office instead of taking an elevator. With the horses out of the way, in New York, for example, every commercial vehicle on the streets will be equipped with the product of some rubber factory.

It is not alone the economy of the automobile truck over the horse-drawn vehicle that is to be considered. Wholesale trucking is in sight. Half the drays one sees in the street are empty. The vehicle goes out from its starting point with a load and returns empty; or it starts empty and returns with a load. In any event, half the energy, half the time, and half the cost is consumed without any load being carried. Under a wholesale trucking system, with established stations, it would be possible after a while to so arrange trips on schedule time, on which every vehicle, practically speaking, would carry loads going and coming.

Before the first Cornelius Vanderbilt started rowing a boat between Staten Island and New York there had never been any system in transferring passengers across the bay. Whoever wanted to go over had to arrange for a boat by chance, and the man at the oars might not have a passenger on the return trip. But Vanderbilt appointed hours for going and coming, so that intending passengers need have no worry about hiring boats. The same systematic Vanderbilt expanded his business of carrying passengers on water until he owned the finest steamships on the Atlantic. Later he turned his attention to transportation on land, and showed the world how to organize railway systems. To-day the Vanderbilt lines, and all other railway lines as well, carry loads of freight on all their trains, whether going out or coming in. The local freighting companies in large cities in future will do the same thing.

The Bush Terminal Company, great handliers of freight, with wharves in South Brooklyn, from and to which is an immense trucking business, are constructing in Manhattan borough, New York, at a cost of $250,000, a central trucking station, to be connected with their wharves by a line of motor trucks, to be run on schedule time over definite routes. It is planned in time to have other central stations and branch lines of lighter vehicles, with the end ultimately of being able to serve promptly any part of the great commercial section of lower New York. There can be no doubt that the plan is practical; if it works at all, the cost of conveying freight over New York streets will be remarkably lessened, and the congestion of the streets be remedied to a very great extent.

Whatever may be the success of the particular company named here, they certainly are on the right road—and one that will require a yearly increasing amount of rubber for commercial vehicles.

* * *

AN American correspondent of London *Commercial Motor* writes that the suggestion is made in the United States to apply the expression "freight automobiles" to all forms of motor cars not devoted primarily to passenger traffic.

The Editor's Book Table.

THE CRIME OF THE CONGO. BY A. CONAN DOYLE, AUTHOR of "The Great Boer War," etc. New York: Doubleday, Page & Co. 1909. [Cloth. 8vo. Pp. xi + 128. Price, $1.]

THE declining output of rubber from what was formerly called the Congo Free State has been explained variously, but without any result in the way of bringing the production up to the former high figures. It may occur to the readers of Dr. Doyle's book that the explanation is to be found in the wholesale murder of the rubber gatherers. It may be mentioned here that the exports of rubber from the Amazon region increase steadily, though not to a large extent, year by year, but there are no reports of systematic killing of rubber workers in South America such as Dr. Doyle intimates in the case of such centers of population in the Congo as Bolobo, which Stanley credited with 40,000 population, which figure is said to have declined to 7,000. If the reports quoted in this book are to be credited, we may look to the time when the Congo country will be entirely uninhabited, and when the production of even one pound of rubber per year will be impossible.

A disappointing fact regarding this book is that it contains no record of personal observation by its distinguished author, who contents himself with quoting reports which have been familiar for years to every reader who has sought to inform himself regarding conditions in the country which forms the subject of his work. After all has been said by our author—or rather quoted by him—there is practically nothing in a shape capable of being verified by one who is disposed to get at the truth of the matter.

What is of chief interest in this little volume is the final chapter, in which it is attempted to suggest solutions of the situation which the author has outlined in the preceding pages. He holds that nothing can be hoped for in the way of improvement from the Belgian régime. There is a hint that the United States of America has some responsibility in the case, but evidently the writer does not look for aggressive action in this quarter—particularly as King Leopold attempted to "bribe American complicity" by allowing some of our citizens to form a company "to share in the unholy spoils."

The book calls for an international conference to reform the Congo. It is pointed out that France and Germany might do the world a service by adding to their African possessions slices from the Congo State. But failing all else, it is the opinion of Dr. Doyle, speaking as a Britisher, that "it is our duty, as it has often been in the world's history, to grapple single handed with that which should be a common task."

This book is interesting, as must be true of anything proceeding from the pen of Sir Conan Doyle, but we fail to see in it anything which has a very direct or practical bearing upon the rubber industry. We do learn from it, however, something which bears upon the failure of THE INDIA RUBBER WORLD to collect a certain subscription account in the assertion that "Gustav Maria Rabinck was robbed and murdered by the Congo Free State." But even this is an old story.

LE CAOUTCHOUC DANS LES COLONIES PORTUGAISES. Rapporteurs: Carlos Eugenio de Mello Geraldes - - - et Bernardo d'Oliveira Fragateiro - - - Lisbon: Typographia *A Editora*. 1910. [Paper. Large 8vo. Pp. 137 + maps and plates.]

THE authors of this valuable monograph are both now connected with the colonial section of the Agronomic and Veterinary Institute of Lisbon, and each has seen service in the Portuguese colonial administration in Africa. Moreover, they were members of the commission appointed by the Portuguese ministry of the marine and the colonies to represent that kingdom at the first International Congress of Colonial Agronomy held at Brussels in connection with the recent international exhibition there. The book is in French, the language of the exhibition.

The work is devoted respectively to the rubber plants, native and exotic, of Angola, Mozambique, Portuguese Guinea, and the Princes and St. Thomas islands. As to rubber species, the authors devote attention first to the rubber derived from rhizomes (*caoutchoucs des herbes*), of which a notable example is *Landolphia Thollonii*. Then are considered the rubbers derived from the extraction of latex of vines (*lianes*). The possessions of Portugal in Africa are so scattered that they include most of the rubber plants which are native to that continent.

So energetic have been the colonial authorities of Portugal and the *consessionaire* companies developing colonial resources that practically every rubber species under cultivation in any country is now under experiment in the regions covered by this report. Not the least interesting feature of this report is the section devoted to the plant first described by Professor Geraldes—locally known as "Ecanda" and botanically as *Raphionacme utilis*. There are also details regarding "potato gum," also known commercially as "alemeidina." The book embraces an important amount of statistics.

It is evident that the details under the heading "Native Rubbers of Portuguese Africa," contained in a British consular report reviewed in THE INDIA RUBBER WORLD, September 1, 1910 (page 442), were derived from the book above reviewed.

HENDRICKS' COMMERCIAL REGISTER OF THE UNITED STATES, for Buyers and Sellers. Especially Devoted to the Interests of the Architectural, Mechanical, Engineering, Contracting, Electrical, Railroad, Iron, Steel, Hardware, Mining, Mill, Quarrying, Exporting and Kindred Industries. - - - New York: Samuel E. Hendricks Co., No. 74 Lafayette street. 1910. [Cloth. Large 8vo. Pp. C+1,342. Price, $10.]

THIS is the nineteenth annual edition of a work which has proved useful to a great number of business men in various lines. It embraces the names and addresses of over 350,000 manufacturing firms and individuals under 35,481 classifications, the mere listing of which in the index requires 100 four column pages. The work as a whole is larger than in any previous year, now embracing 238 pages of new matter. While not offered as a complete directory of any branch of industry, its lists under each general heading are sufficiently full to make the work of value for reference, to which are to be added the advantages of its being accurate and brought up to date.

IN CURRENT PERIODICALS.

RUBBER in Centraal-Amerika. By J. Alberts. = *De Indische Mercuur*, Amsterdam. XXXIII-23 (June 7, '10). Pp. 441-442.

Uote sur les Hévéas Cultivés en Afrique Occidentale. = *Journal d'Agriculture Tropicale*, Paris. X-107 (May 31, '10). Pp. 129-131.

Nach den Kautschukländern. By A. H. Berkhout. [Relates mainly to the Malay peninsula.] = *Der Tropenpflanzer*, Berlin. XIV-6 (June, '10). Pp. 277-287; XIV-7 (July, '10). Pp. 348 and 357.

L'Hevea a la Cote Occidentale d'Afrique. By Yves Henry. = *L'Agriculture pratique des pays chauds, Paris.* X-87 (June '10). Pp. 442-450.

Der Kautschuk in dem Deutschen Kolonien. By Professor O. Warburg. [A paper read before the International Congress for Tropical Agriculture, in connection with the International Exhibition at Brussels.] = *L' Agronomie Tropicale*, Louvant. II-7 (July, '10), Pp. 184-192; II-8 (Aug., '10), Pp. 235-240.

Die Kautschukkultur in Mexiko. By H. Juan Ludewig. = *Der Tropenpflanzer*, Berlin. XIV-10 (Oct., '10), Pp. 516-527.

L'Exploitation du Caouchouc et la Culture des Plantes Productrices au Dahomey. By Auguste Chevalier. = *L'Agriculture Pratique des Pays Chauds*, Paris. X-88 (July, '10), Pp. 24-32.

ON the Cultivation of Dwarf Rubber Trees. R. Thomson. [Relates to the advisability of planting *Manihot* species.] = *The Indian Forester*, Allahabad. XXXVI-3 (Mar. '10). Pp. 117-125.

Experiences de Rendement sur l'Arbre a Caoutchouc du Tonkin. (Teonong. *Bleekrodea Tonkinensis*, D. et E.). = *Bulletin Economique*, Hanoi. XIII-82 (Jan.-Feb. '10). Pp. 1-11.

Addendum. Observations Biologiques sur l'Arbre á Caoutchouc du Tonkin (*Bleekrodea Tonkinensis*). = *Bulletin Economique*, Hanoi. XIII-82 (Jan.-Feb. '10). Pp. 12-14.

L'*Hevea* en Cochinchine. By E. Mathieu. = *L'Agriculture pratique des pays chauds*, Paris. X-86 (May '10). Pp. 357-380.

A BOOK for rubber planters—Mr. Pearson's "What I Saw in the Tropics."

An American Planting on the Amazon.

By D. B. Riker.

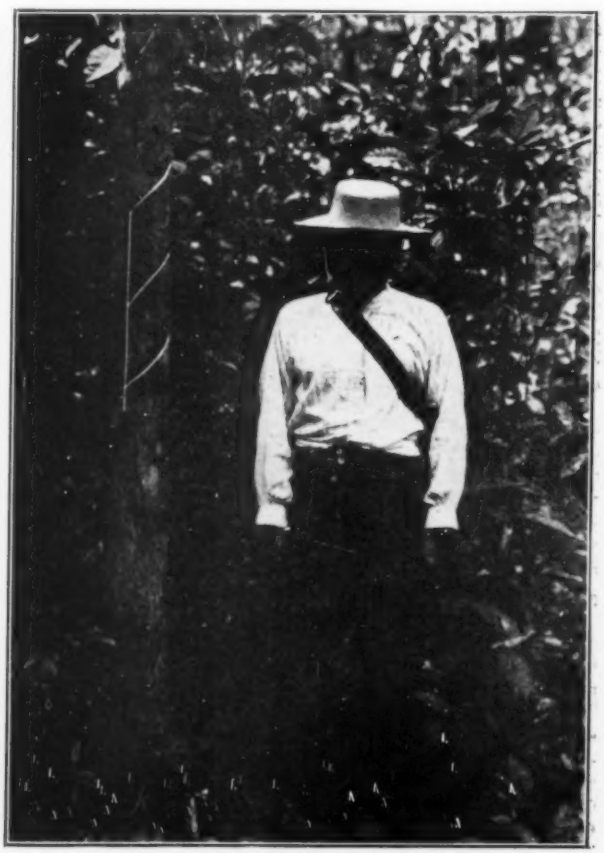
TO THE EDITOR OF THE INDIA RUBBER WORLD: In response to your request for some details regarding my rubber plantation in the Amazon valley, I am pleased to comply. First, as to its history. At the breaking out of the Civil War in the United States, my father, Robert H. Riker, resided in Charleston, South Carolina, with his family. He being a native of that state, was employed at Fort Sumter, Charleston, during the war. After the war, things being in bad condition generally, he came out here to Santarem, bringing his family. That was in 1867. He selected Diamantino, the place I am going to describe, had it surveyed, and bought it of the government, and for many years worked in sugar cane. Having mounted a large mill bought of George L. Squire, New York, he built a dam across the Diamantino creek, and in that way developed power for the water wheel to run the cane and also a sawmill. The creek comes from the foot of the Brazilian tablelands, said mountain being about a half mile from our dwelling house. Some of the rubber shown in one of the accompanying photographs is on the mountain slope.

Diamantino and Maicá, which are adjoining properties, belong to David B. Riker and Herbert A. Riker, lie seven miles south of the city of Santarem, which is located near the mouth of the river Tapajós, in sight of the Amazon, about 500 miles above Pará. There is a fine wagon road for all transportation and a creek called Maicá navigable all the time for large launches going by the place. Our tracts of land have been increased lately to quite an extensive area. The land is fertile and especially adapted to the cultivation of rubber, sugar cane and cacao, and on the Maicá stream cattle thrive and the African water buffalo grows to perfection. There are planted on the place 80,000 Pará rubber trees (*Hevea Brasiliensis*). The principal laborers are Indians. The locality is healthy, game and fish abound, a fine breeze keeps the temperature very agreeable, and the best hard woods cover the tablelands.

In the course of time my parents died and the sister returned to Tennessee, in the United States. My brother and I continued on the place, growing sugar cane and raising cattle. About 1883 rubber rose in price and continued to rise. We planted a few thousand trees, and we were put down as fools. Everybody, including the rubber men, who claimed to know, said planted rubber would not give milk, for many reasons, they argued. Well, things jogged on as usual, and our little rubber patch was about ten years old.

We commenced to tap the trees first for the sake of doing so, or to become fully convinced whether planting the trees was really a loss of time and capital. To our surprise and satisfaction we found the yield to be quite an item, and after continuing for a while we became convinced that the cultivation of the rubber

THE RIKER PLANTATION AT SANTAREM.
[Young *Hevea* rubber on the mountain slope.]



THE RIKER PLANTATION AT SANTAREM.
[Herring bone tapping of an old *Hevea* tree.]

HERBERT A. RIKER.

DAVID B. RIKER.

tree was without a doubt one of the grandest enterprises that could be gone into; so we continued to plant. At first we made many errors and lost much time and money before we became skilled in the selection of the quality of land, and when and how to plant the rubber tree so as to obtain the best growth and the greatest yield of milk.

We have over twenty years' experience in the cultivation of rubber—not theory alone, but practical knowledge, from cutting down the virgin forest all through the processes to the smoking of the latex—and therefore have a great advantage over those who are now commencing to plant. One pound of rubber taken out here is worth many pounds taken out on the *seringaes* of the upper rivers. Here we do not have to contend with the falls, *impaludismo*, the attacks of wild Indians, the continued war with the rubber cutters and where the Winchester and Mauser are "law." Here at Santarem we have health. Good authorities govern with justice the *municipio* and town, so one's rights are guaranteed. We are in direct telegraphic communication with the world, and steamers of all sizes and nations come in port and cast anchor in the blue waters of the Tapajós.

Dr. João Antonio Luiz Coelho, the present governor of the state of Pará, has had passed a law paying a premium of one milreis, or 50 cents, per rubber tree planted. Dr. Coelho has done this to stimulate the cause, for he sees the grand importance that the tree that yields gold should be cultivated. Dr. Coelho, like Washington, seeing far into the future over the heads of his countrymen, is a man of high intellectual capacity, a lover of his country and his people, a defender and lover of progress and

OLD RUBBER ON BORDER OF STREAM.

OLD TAPPED "HEVEA" TREES.

THREE YEAR OLD RUBBER AT DIAMANTINO.

DWELLING AND FAMILY OF D. B. RIKER.

industry. He is doing wonders for Pará, and some time in the future this will be the El Dorado of the world. Lands are being sought for, and rubber is the mania.

My brother and I are planting on a larger scale; this year we expect to put in 40,000 trees; we are turning all our attention to the cause. Rubber properly planted and cared for can be cut to advantage in from six to eight years. There is nothing we can embark in and be so sure of success as planting rubber in Pará soil. Once planted, the future is secure. We have sold a part of Diamantino to an English company, the Diamantino Rubber Plantations, Limited, with offices in London. But we have reserved land for our planting that will hold many millions of trees.

DAVID B. RIKER.

Santarem, Estado do Pará, September 23, 1910.

* * *

IT is interesting to note that the Messrs. Riker are no less enthusiastic now over the prospects of planting *Hevea* rubber on the Amazon than they were more than ten years ago, when they wrote us regarding their first tapping. [See THE INDIA RUBBER WORLD September 1, 1900—page 326.] The London company referred to in the above letter was registered March 5, 1910, with an authorized capital of £100,000 [= $486,650].—THE EDITOR.

Points on the Cotton Situation.

THE WORLD'S COTTON PRODUCTION.

THE semi-annual convention of the National Association of Cotton Manufacturers, held at Portsmouth, New Hampshire, September 15-17, has been mentioned in THE INDIA RUBBER WORLD [October 1, 1910—page 18]. From further reports of the proceedings the following details regarding the production of rubber have been compiled.

India.—At a hearing given by Viscount Morley, secretary of state for India, in the British cabinet, on July 27, 1910, to a deputation from the International Cotton Federation, it was stated that—

"It was to India that all the cotton manufacturing countries of the world looked for the speediest relief from the shortage of raw material, and it must also be borne in mind that India came next in importance to the United States of America as a cotton producing country. India produced nearly one-fifth of the cotton supply of the world, and although it was not suitable to any great extent for the English cotton industry, yet it would be an enormous relief if its cultivation could be so encouraged that both the quality was improved and the quantity largely increased. The development of India was of supreme importance to England. Forty per cent. of the products of the cotton manufacturers of Lancashire were exported to that great country."

It is claimed that with improved methods in India the present acreage could yield 10,000,000 bales instead of only half as much, and that it is possible for India to raise 20,000,000 bales. The president of the National Association of Cotton Manufacturers suggests that "It will be interesting to us [Americans] all to watch the developments in that country along these lines, for, while we do not use much of this cotton, it is true that the more of it there is, the more American cotton will be available for other purposes."

[A report by United States Consul Dennison, at Bombay, states that during the five years ending in 1908-09 certain provinces—estimated to yield 75 per cent. of the cotton output of India—had an annual area under this crop of 15,659,500 acres. During the year named the cotton acreage in these provinces was estimated at 12,289,000, and in 1909-10 at 13,463,000. The estimated acreage for the present season is less than last year.]

Russia.—The production of cotton in the Russian empire is confined to certain governments in Asiatic Russia—principally in Turkestan, where conditions exist for cotton cultivation comparable with those in Egypt. Russia now supplies herself with half the cotton she uses. In 1899, of the total import of 367,000,000 pounds, 79,000,000 came from Turkestan, leaving 288,000,000 pounds to be supplied by the rest of the world. In 1908 Turkestan alone supplied 288,000,000 pounds for Russian consumption, out of the total of 582,000,000 pounds required for the factories of the empire.

Mexico.—There is a steady increase in the cotton manufacture in Mexico, owing to the growing demand for the products, yet the mills do not yet produce one-fifth of the cotton demanded by the country. A small amount of raw cotton is raised in Mexico, but not enough to supply the mills of the country.

California.—After several years of experiments with cotton in Imperial Valley (in southeastern California) the first commercial crop of about 500 acres was planted in 1909. The result is reported to have been satisfactory. From one 160 acre plantation the gross income was $11,200, which netted the owners over $8,000, or about $50 an acre. On land valued at $100 to $150 this makes a very profitable business. When more experience

has been gained better results are expected. Thus this season about 15,000 acres were planted with the same variety, and a slight increase in length of staple has been obtained. Imperial Valley is being irrigated extensively, and climate conditions are reported most favorable for cotton. It is pointed out that local capital is not plentiful, and that it is considered that the best results will be obtained by handling cotton as the orange crop of southern California is now handled—entirely by growers' associations. With coöperation in this form the cost of cotton will be reduced to the minimum, and selling contracts can be made direct with spinners.

SEA ISLAND COTTON MARKET.

JOHN MALLOCH & CO., Savannah, report [October 14]: "During the week under review, supply has not kept pace with demand. The result, as we predicted last week would be the case under such circumstances, has been that prices have advanced rapidly, and we are now seeing a market similar to that which we had at this time last season, only in a more aggravated degree. Cotton is moving very slowly. There seems still to be a short interest here and at interior points. Farmers are bullish, and unwilling to sell. The major portion of the cotton coming to Savannah factories is ordered held, with the result that each day's offerings are very limited, and buyers have bid the market up on themselves in the endeavor to secure these small supplies. A rise of two and one-half cents in a week, as indicated by our quotations, means that nearly every order that has been accepted in the interim has resulted in a loss to the seller, and has tended to maintain the short interest which is driving the market up. The market closes to-day without any alleviation of these difficult circumstances, and until there is an accumulation of cotton here looking for buyers we do not see what is to stop the advance."

Stocks on October 14 (in bales) were as follows:

	1908.	1909.	1910.
Savannah	5,184	8,610	5,958
Charleston	2,317	1,375	398
Total	7,501	9,985	6,356

BALATA IN RUBBER GOODS.

UNTIL within recent years balata gum was in little use, except in the manufacture of balata belting. Then it was discovered to be a good substitute for gutta-percha, in the insulation of submarine cables, as well as for many other purposes. Balata has many of the characteristics of gutta-percha, and can be treated in the same way, although, principally on account of its being so intractable, it was left alone by the rubber manufacturer in favor of the more easily worked gums. Contrary, however, to the generally accepted opinion, balata can be vulcanized by itself, and while it has not the elasticity that vulcanized rubber has, it is very much stronger.

For certain purposes, therefore, it has been of great value in the manufacture of many articles. It was found by tests that where great strength was required, as in friction tests, in air-brake hose and other master car builders' requirements, balata was a good thing to use, as well as in places that had to stand the abrasion or contact with a wearing surface, as in vehicle tires. It will not give good results if used by itself; it must be used either with some of the softer rubber, as Africans or guayule, which the readers of this journal are familiar with, although it has been successfully used with fine Pará. Good results are obtained by its use in connection with reclaimed rubber, without any other rubber being used.

The writer has found the following proportions to give good results in friction for hose and belting, red and white machine tubing, and practically in everything made in the mechanical goods factory: Fine Pará 50 pounds, Accra flake 25 pounds, block balata 25 pounds. Coarse Pará, maniçoba, or Centrals can be substituted for the fine Pará. As many pounds of this mixture are then used as would have been used of the fine, coarse, maniçoba, or Centrals. The various rubbers and balata are mixed together on a mill before being used, to insure their perfect union. I believe that this combination can be safely used by concerns making insulated wire, as well as other lines, as, for instance, the druggists' sundries line, and the boot and shoe trade, for it causes no more trouble in open heat cures than in any other way.

To summarize, balata has been and is now being successfully used in the manufacture of frictions in rubber belting and hose, solid tires and molded goods, tubing and fruit jar rings. In many of these articles it is taking the place of much higher priced rubbers, for, as before stated, it is successfully used without any other rubber, where it is used with red, white or black reclaimed stocks.

The manufacturer who uses his brains will secure by a little experimenting a rubber, or substitute therefor, that will give a result equal to that he would obtain if he were using a higher priced rubber.

In the preparation of balata by washing the same care must be used as in washing crude rubber. After washing in the regular way it will be necessary to go over the sheets, after they have hardened, and pick out the bits of bark or wood, as these, owing to the peculiar nature of balata, are harder to wash out than is the case of crude rubber. WILMER DUNBAR.

* * *

"FOR ordinary compounding, or, perhaps, it is better to say amalgamating, were balata 10 cents a pound and pontianak the same figure, I should choose pontianak," said one of the most expert manufacturers of rubber recently. "Balata fools manufacturers more than any other gum. Five per cent. of it in Pará rubber will reduce the elasticity ten times more than any other cheap gum. It apparently adds strength, but it does not do it really. To prove this, stretch a piece of pure Pará rubber as far as it will go. Then measure the attenuated strand, get its cross section, and break it, measuring the breaking strain. Then stretch a strip of rubber containing balata that shows the *same measurements in cross section* under full tension as did the first sample, and you will find it breaks much more easily. It is not nearly as strong. Actually, there are very few places in ordinary rubber manufacture where balata can be used to advantage. As a substitute for gutta-percha or in admixture with it, however, it is of great and constantly increasing value."

TOO COLD, "PERHABS," FOR GUAYULE.

A FRIEND of this journal favors it with a communication which is reproduced faithfully below, but from the postmark on the letter one is inclined to think that perhaps the Guayulegras would not flourish in our correspondent's locality. A region where even the typewriting machines catch cold—see the spelling of "perhabs"—is not likely to be adapted to the cultivation of Guayulegras. The letter follows:

TO THE INDIA RUBBER WORLD, New York—

Gentlemen: J am interested in starting a Rubberplantation, specially producing Rubber from Guayulegras.

A Friend of my did give me your address telling me that perhabs you could give me some information, where J can get some litterature on this subject, and perhabs some seeds or plants.

J would be very thankfully to you, if you would be so kind and help me to it. Naturally am J ready paie any price, that you will charge me, for so doing. Very respectfully,

AN American consular officer in a European country reports having inquiries for catalogues and lists from American manufacturers of (1) rubber goods—hot water bottles, gloves and sanitary articles; (2) special machinery for the rubber industry.

The India-Rubber Trade in Great Britain.

By Our Regular Correspondent.

IN a report made recently to the directors of the United Malaysian Rubber Co., Limited, Dr. P. Schidrowitz states that the production of 3,000 to 5,000 tons of rubber by the company from gutta-jelutong should in no way affect the balance of the rubber market. In commenting on this the *India-Rubber Journal* states that the interest of the statement lies in the fact that a process of substitution is about to take place. Instead of a large quantity of jelutong being marketed, a much smaller quantity of rubber will be substituted, the elimination of the lower and the substitution of the higher grade article being all that will occur. Perhaps some people who are shareholders in plantation companies may be interested in the balance of the rubber market, but I think I am right in saying that the bulk of those who have been using the large amount of jelutong which has come on the market in recent years don't care whether a few thousand tons more of raw rubber are produced or not. They have been buying jelutong as a low grade rubber which suited their particular purpose, and they don't particularly want the purified rubber obtained from it; at any rate they have many other rubbers of similar quality to choose from. The *India-Rubber Journal* presages the entire failure of jelutong supplies for the manufacturer within a short time, and it is not at all consoling to the latter to know that an entirely different product will be obtainable instead. This need not, of course, affect the prosperity of the Malaysian Rubber company as long as it can sell its extracted rubber and residual resin at a profit. Jelutong, of course, has only had a small use in Europe, compared with America, but those who have adopted it as a cheap binding material in certain branches of the rubber manufacture are by no means pleased at the recent rise in price or at the threatened extinction of supplies. The time now seems opportune for the exploitation of other districts far removed from the Straits or Malaya, where jelutong or something closely approximating to it is known to occur.

GUTTA JELUTONG.

By the way, some rather severe strictures upon the flotation and prospects of the United Malaysian company have appeared in the *Straits Times*, and been reproduced in the London *Financial News*. Moreover, correspondence following this has shown that there is an important German company working jelutong in Sumatra, and obtaining it by a special process of their own—facts which are put forward to show that the Malaysian company has by no means a monopoly of the supply.

CONSIDERING the way that the speculating boom has died down among the public it is a question whether it is worth while for financial and other papers to go on giving so much space to technical matters which up to this year have only had reference in the accredited organs of the rubber trade. Since the fall in the price of raw rubber commenced, and was at once followed by a fall in share values, public interest has diminished, and now one hardly hears the subject of rubber referred to in the club or the railway train. In some quarters a new boom is confidently predicted when American supplies run out, but whatever may happen in this direction, it is certain that the criticisms leveled at five or six of the new promotions will not be forgotten by investors or even speculators if there should be a revival of rubber promotions. The general position is that whatever dividends may have been paid or are assured the market value of the shares in all the companies has fallen considerably, and this is a position of affairs that the average investor does not appreciate, and he is not always too ready to agree with the opinion of the chairman of his company that the fall in price of rubber is a very great advantage. With regard to this point, it is pretty generally agreed in manufacturing circles that a further drop of a shilling or two per pound will see a large increase in the demand. I have my doubts as to the vast extent of the predicted increased demand, but quite agree that the demand will be largely augmented by the advent of an era of low prices. At the time of writing, when firm, hard Pará has fallen below 6 shillings a pound, quite a panic seems to have possessed shareholders in rubber, and the disposition to realize holdings for what they will fetch has, of course, had the effect of further depreciating share values.

RUBBER AND THE PUBLIC.

AT this season of the year it has generally been my custom to say something about rubber or rubber factories arising from a Continental holiday. This year, however, I have nothing of technical interest to record. My vacation was briefer than usual, and time only permitted of my visiting a few places in France. I may say that when in Paris I had the pleasure of meeting Mons. A. D. Cillard, fils, editor and proprietor of our contemporary *Le Caoutchouc et la Gutta-Percha*, and was hospitably entertained by him. My knowledge of French by no means represents perfection, but I think it will be admitted that it is better than Mons. Cillard's English, so the conversation during dinner on the boulevards was carried on in French. I understand that Mons. Cillard is secretary of the official French delegation to next year's Rubber Exhibition in London, and expects to be in London about a fortnight. Though of course France is an important rubber manufacturing country, she still remains by far our best customer. The most recent figures are exports to France, £379,530, and imports from France, £30,000. The larger exports to France are confined to certain branches upon which the new French tariff is unlikely to have much effect.

HOLIDAY NOTES.

SINCE writing my last notes on this absorbing topic the gauntlet has been thrown down by the Simplex Rubber Co., owners of Gare's patent, to all and sundry other reformers. I was fully expecting something of the sort, and am not taken by surprise. Under the circumstances, I must necessarily refrain from comment until the issue between the Simplex company and the Premier company is settled, either within or without the law courts. I say Premier company, as I understand that they are one of the disputants in the action which is impending. As there are several reforming patents granted, the issue of their action will be looked for with great interest, and the trial will certainly rank as the most important rubber case which has come before the courts for a very long time.

REFORMED RUBBER.

I AM looking out with interest for replies to the letter on this subject from "A Merchant" in the September issue of THE INDIA RUBBER WORLD. The wording of the letter is of a somewhat peremptory nature, and at the same time slightly obscure. The gist of it is that our esteemed editor is requested to ask the rubber manufacturers to inform the trade (?) what is the difference in the working qualities of fossil flour as sold under various names, such as kieselguhr, infusorial earth, tripolite, and so on. The American manufacturers may possibly jump at this opportunity of getting into print, but I doubt if much information will come from this side. Though always ready to assimilate trade information, the British manufacturer rarely has any to impart. "A Merchant" wants to know why one of these bodies is sold to the disadvantage of the other, when in reality they are of one and the same character. I should think that the correct answer to this is that one selling agent can "get in" where

FOSSIL FLOUR.

another fails to effect an entrance. I am not prepared to admit that all the various fossil flours on the market are of identical composition, or will all give the same result in compounding. There are differences in gravity, in color and in texture, and perhaps other little differences the importance of which is known to the astute rubber manufacturer. It is not enough for the latter to be told that other fossil flours are of the same character; he is not going to risk a change merely on the strength of a general statement of this sort. I do not know what the business done in the States in this particular chemical amounts to. In England the amount used in the rubber factories is by no means large, and there are at least three firms supplying this modest demand with fossil flour, sold under three quite different names, which give no direct clue to the composition of the material. For purposes other than rubber manufacturing the use of fossil flour—otherwise finely divided silica—has largely increased of late years. In addition to the older districts of Germany and Nova Scotia it is now obtained from Sweden and Ireland. The rigors of the climate are against the Swedish output, but great progress has been made in the north of Ireland, where an important deposit of high grade material is being worked by the Diatomite Co. Limited, of Manchester.

TIRE NOTES.

THE new scale of duties on pleasure cars which have just come into force are calculated to discourage the purchase of 40 H. P. cars, and a slump in the manufacture of very powerful cars has already set in. Although the increased cost of tires during this year may not have caused the giving up of motoring, in many cases there is no doubt that it has led to a considerable diminution in mileage. "We must save the tires," the motorists have been saying, and many trips have been abandoned. A friend of mine, who lives nine miles from his place of business, says that he has used the train much more frequently this year compared with recent years, in order to save his motor tires, which cost £60 [=$292] for the 20 H. P. car. Of course, this sort of economy has not been universal, but from all accounts it has been fairly general. Petrol is also up in price, now being 1*s.* 3*d* [=30.4 cents] per gallon.

Large additions are now being made to the works of the Shrewsbury-Challiner Tyre Co., Limited, at Ardwick Green, Manchester. These will have the effect of about doubling the capacity of the works, and will include new and more extensive offices.

OBITUARY.

I MUCH regret to record the death of Mr. Thomas Rowley, of Manchester, which occurred on August 11 at his residence at Colwyn Bay, North Wales. Mr. Rowley had been in a poor state of health for some years, and the business of Messrs. Thomas Rowley & Co. has been for some time managed entirely by Mr. James Wallwork, who will continue to carry it on. Like many other men who later became prominent in the trade, Mr. Rowley was with Messrs. Charles Macintosh & Co., Limited, in early life, gravitating thence to the works of Mr. Clarke, at Newton Heath, Manchester, and later to Messrs. Quinn & Co., of Leyland, the modest works which later on gave rise to the present large establishment of the Leyland and Birmingham Rubber Co., Limited. At a later date he carried on business for himself as a proofer at the Victoria Works, Newton Heath, now Messrs. Frankenstein & Sons. During the last period of his life his attention had been mainly concentrated on scrap rubber, reclaimed rubber and a number of chemicals for use in the rubber industry.

The decease on October 1 of Mr. Thomas Arthur Hampson, managing director of the Castle Rubber Co., Limited, at Warrington will be much regretted by his numerous friends. Not originally connected with the trade, Mr. Hampson came into it by stress of circumstances, and soon made his mark, though also retaining his directorships of a number of other industrial concerns.

INSULATED WIRES FOR MOTOR CARS.

BY JONATHAN MILBORNE.

NOTWITHSTANDING the higher price often paid by motorists for their insulated wire than is paid for similar material for other purposes, the quality is, as a rule, far lower than ought to be put in so important a part of the car's anatomy. I have just paid the current price for some low tension wire, only to find that the whole of the insulation could be easily chipped off with the thumb nail. It is usual to find the lowest class of rubber used for insulation, if rubber is used at all, although this material should be almost of the very best.

In one respect the quality of rubber used for tobacco pouches would be ideal, and this is in point of elasticity, but unfortunately this very highest grade suffers from the disadvantage that in cold weather it hardens, and is liable to crack. A very slightly lower quality is more suitable for all-round good results, and certain grades of the red variety frequently used by analysts in the form of tubing are perhaps the best of all; not forgetting, however, that there is plenty of veritable red rubber rubbish.

An excellent plan is to buy any ordinary low tension wire that contains plenty of good wire at the core, then to protect it by pushing it into some good rubber tubing, obtained from the firms who deal in chemical laboratory apparatus. Of course the diameter is chosen so as to be suitable for the low tension wire, and if the fit is somewhat loose it does not matter. In this way you can crowd the outer tubing on to the wire so that when the terminal has been attached, the rubber tube will spring itself well over the terminal joint and give a most effectual and neat protection.

The "insulation resistance" of the rubber tube referred to is such that, although the completed cable may not be quite as thick as ordinary high tension cable, it will answer the purpose just as well and probably better. Such cable is particularly applicable to the high tension wires or high tension distributer devices in which the rigidity of the ordinary cable is a disadvantage and often a nuisance. For as a low tension wire it is obviously much better than the ordinary stock article in point of resistance to wear, water, and escape of electrical current.

For the very best quality of flexible cable, merely stranded wires are now but seldom used, but the makers of motor accessories do not yet seem to have thought it worth while to follow suit. The method of construction is perhaps expensive, but it is certainly efficient. Each wire is flattened out into ribbon and is twisted round a cotton thread, a large number of such wires being run together in each cable. The terminals, of course, cannot very well be soldered, but are held with a neat screw fitting.

Now just a few words on the subject of terminals. These are generally flimsy affairs which might be of some use if the copper were rather thicker. These neat little ring devices are handy, but the wire sooner or later breaks off close to the ring. That is the weak point with every terminal. There is only one way of making a satisfactory finish of the joint between the wire and the terminal, and that is to cover the whole joint and some of the wire with insulating tape, and this must be very carefully and neatly done; of course the ring type terminal cannot be treated thus.—*Motor Print.*

"ROBERT DAWSON EVANS, 1843-1909," is the lettering on the outside of a sumptuous little volume, privately printed, as a tribute to the man here named. There is a brief biographical sketch, including a record of Mr. Evans's successes in the rubber and other businesses, and an appreciation of his character which his many surviving friends will ratify. The frontispiece is an unusually good photograph.

A BOOK for everybody interested in tires—"Rubber Tires and All About Them"—this office.

"THE INDIA RUBBER WORLD" *CASTILLOA* TROPHY.
[To be offered at the London Rubber Exhibition, 1911. Made by Dieges & Clust, New York.]

OUR "CASTILLOA" TROPHY.

THE INDIA RUBBER WORLD trophy, offered to stimulate an interest in improved methods dealing with the latex of the *Castilloa* rubber, and to be awarded at the International Rubber Exhibition in London next year, is a silver cup of artistic design and workmanship, 50 inches in height. The stem of the cup, of which an illustration appears on the opposite page, represents a trunk of the *Castilloa elastica* tree, beside which stands a rubber tapper, *machete* in one hand and a *calabash* in the other, tapping the tree in the destructive manner common to wild-rubber gatherers. The upper part of the tree trunk terminates in a cluster of *Castilloa* leaves, which hold a vase, graceful in form, the center panel bearing the inscription "THE INDIA RUBBER WORLD Trophy for the Best System of Extracting Latex from the *Castilloa elastica*. International Rubber Exhibition, London, 1911." The middle of the border at the top shows a raised hemisphere of the countries in which the *Castilloa* thrives.

On each side is a frieze of planted *Castilloa*. The trophy, in American butler and French gray style, represents a value of $1,000. The well-known silversmiths, Dieges & Clust (New York), are the makers.

CONDITIONS.

1. The cup will be awarded for the best process, method, tool or appliance for extracting the maximum amount of latex from the *Castilloa elastica*.

2. Entries may be tools or appliances, accompanied by full description or drawings, accompanied by descriptions.

3. There will be no entrance fee.

4. Tools, appliances, or drawings submitted for competition will be assembled as one exhibit, known as "THE INDIA RUBBER WORLD Competition."

5. The cup will be the absolute property of the successful contestant. It will be presented to the winner or his accredited representative at the International Rubber Exhibition Dinner, to be held in London while the Exhibition is in progress.

6. The judges have the right to test every tool or appliance.

7. Tools, appliances, and drawings will be returned to the owners or representatives at the close of the Exhibition.

8. While the management of the Exhibition will scrupulously protect the exhibits, they will not be responsible for loss or damage from any cause.

9. The judges' decision shall be final, and entries will be accepted only on this understanding.

10. All entries must be made to the Award Committee, Interntional Rubber and Allied Trades Exhibition, Limited, 75, Chancery lane, W. C., London, by Monday night, May 1, 1911. Letters bearing the postmark May 1 will be accepted as entered at the offices on that date. *Entries* should be sent by registered post, or delivered by hand, that a receipt may be given for them. *Exhibits* for competition must be sent direct to the Award Committee, Royal Agricultural Hall, Islington, N., London, but should not reach that building before June 15 and not later than June 20. Transportation must be paid on all exhibits.

The Exhibition opens June 24 and closes July 11.

LARGER KASAI RUBBER PROFITS.

THE trading profits for 1909 of the Compagnie du Kasai—the rubber monopoly in the Kasai region of the Belgian Congo,—though showing an important improvement over 1908, fell considerably short of the results for some preceding years. The gross return for 1909 was 13,055,293 francs [=$2,519,671.55]. The net profit, after providing for the cost of planting rubber as required by law, interest on bonds, etc., was 6,324,927 francs [=$1,220,710.91].

After paying 6 per cent. on the capital shares, directors' fees, agents' commissions, and adding to the reserves, there remained for the holders of the beneficiary shares (common stock) 5,226,000 francs [=$1,008,618], or 1,300 francs per share, against 800 francs in the preceding year.

The capital of the company is in 4,020 shares of 250 francs each, totaling 1,005,000 francs [=$193,665], and an equal number of beneficiary shares "without designation of value." It is the latter which participate in the large profits above referred to. One-half of the beneficiary shares are held by the 14 companies participating in the Kasai syndicate, one-half by the State. [See THE INDIA RUBBER WORLD, November 1, 1907—page 54.] If the beneficiary shares be given the same par value as the capital stock (250 francs), as is the custom in issuing "common stock" in America, the Kasai dividend of 1,300 francs per share would work out at 520 per cent. for the year.

A recent Brussels bourse quotation for these shares "without designation of value" was 14,575 francs [=$2,812.98]. The quotation a year before was 13,675 francs.

The net profits of the Kasai syndicate since the beginning, derived chiefly from its rubber trading—they also have ivory concessions, but this branch of the business is not important—have been:

In 1902	1,210,706.23 francs	[=$233,666.26]
In 1903	3,497,393.01 francs	[= 677,996.85]
In 1904	5,334,797.06 francs	[=1,029,615.82]
In 1905	7,543,084.98 francs	[=1,455,885.40]
In 1906	8,033,657.22 francs	[=1,550,495.85]
In 1907	2,018,979.93 francs	[= 389,663.13]
In 1908	4,337,428.70 francs	[= 837,123.74]
In 1909	6,324,927.00 francs	[=1,220,710.91]

The details for the calendar year 1909, presented here, were reported at the general meeting of the company held in Brussels on October 4.

NEW YORK ELECTRICAL SHOW.

THE fourth annual New York Electrical Show, held in Madison Square Garden, October 10-20, was even more successful than its three predecessors, the exhibits being more numerous and more varied, and the attendance larger. The spectacular feature was the magnificent electrical illumination of the vast building, at once illustrating utility, taste, and skill. There were many other elements of the exhibition representative of electrical engineering progress, together with an extensive display of electrical vehicles, and particularly of household equipment, in the way of heating, cooking, and laundry apparatus, and so on. The latter class of articles is becoming important in the trade, and figures largely in the manufacture of electrical devices. It may be added that every one of them calls for the use of rubber for insulation.

The idea of electrical shows is becoming very popular as a means of educating the public in new uses of electricity, and giving manufacturers an opportunity to display their products. The first annual electrical show of the Colorado Electric Club was opened at Denver on October 10, and continued during the week.

CABLES AT THE ELECTRICAL SHOW.

THE Safety Insulated Wire and Cable Co. (New York) exhibited at the recent New York Electrical Show, in Madison Square Garden, a service box about 3 x 4 feet and 4 feet high, built of brick, showing a 16 duct run such as is installed by the company's underground construction department connected to the box. The idea was to illustrate the method of underground electrical connections. The exhibit included also boards with samples of submarine, underground, and other cables insulated with india-rubber, paper, and so on.

MADEIRA-MAMORÉ RAILWAY.

THE Madeira-Mamoré Railway Co., whose work in opening an outlet for the important rubber fields of Bolivia have been reported on in recent issues of THE INDIA RUBBER WORLD, have marketed recently in Europe a bond issue of £450,000 at 6 per cent., at 60 years.

THE Beacon Falls Rubber Shoe Company (Beacon Falls, Connecticut) have issued their list of "Marathon" tennis shoes and regular lines of yachting shoes and basket ball shoes. The yachting shoe prices are the same as those given for other companies in the last INDIA RUBBER WORLD (page 32).

A BRAZILIAN VIEW OF THE RUBBER CRAZE.

[FROM "REVISTA DA ASSOCIACAO COMMERCIAL DO AMAZONAS."]

THE INDIA RUBBER WORLD reproduces in its April number a curious picture showing the London Stock Exchange on one of the days of the greatest excitement over the organization of enterprises for *Hevea* rubber. The most curious feature of the illustration is not the varying phases of physiognomic expression of the great number of people crowding around, awaiting their turn to risk their toil-won savings in this or that company loudly vaunted by the brokers.

What strikes the attention, rather, is that notwithstanding the valley of the Amazon is the largest producer of rubber, representing more than one-half of the world's consumption, it is not on account of this rubber, the best and most abundant, the veritable dominating factor in markets and quotations, that this fever, this rage to become a stockholder, to invest money with a prospect of realizing enormous dividends within a short time, that this mad crushing and forging ahead by dint of fisticuffs is to be attributed.

These pounds sterling are pouring out for *Hevea* companies—yes, for our *Hevea,* but planted and exploited in the Orient. If some one were to venture to launch, we will not say ten, twenty, but barely two or three companies for exploiting rubber plantations in Amazonian regions, he would look in vain for purchasers of the stock.

To our mind this reveals one of the most interesting phenomena of our extractive industry. It is certain that we have the greatest *seringaes* (rubber estates) in the world, all of the territory of the nation and that of other countries washed by the waters of the Amazon river exerting a predominant influence in the markets, that is to say, as a source of supply. The fine quality of our *Hevea* is acknowledged by every one and even admitted to be without an equal, and unapproachable in its manufacturing adaptability.

Even the Federal government recognizes that the greatest advantages accruing to the nation's treasury during the last fiscal year were derived by the rubber industry. At any rate, this is what the minister of finance has recently declared in his reports to the President of the republic, and this latter in his annual message to the Congress.

Our February congress—but recently adjourned—also had the good fortune to arouse the interest of the minister of agriculture in its final conclusions. [See THE INDIA RUBBER WORLD, April 1, 1910—page 233.] This official, who is a large agriculturist in São Paulo, and one of the best exponents of our resources, declared in a telegram to the governor of the state that he was in most perfect sympathy with the conclusions reached and with the earnest and patriotic work of the congress.

Some of the measures recommended he had already put into practice, such as the government subvention of the Cerqueira Pinto invention, the use of which on a large scale in the Acre territory would furnish sufficient data for more determinate and general measures.

There are other things, however, for which a solution is not less desirable than the results achieved by Mr. Cerqueira Pinto's invention. Our economic and industrial life in the Amazonian region must be readjusted. Let us throw off this prolonged lethargy that has hampered our activities for the past 30 years; above all, we must recognize the fact that fortune tires at last of supporting the spendthrift, finally frowning severely upon those too unwise to profit from her favors.

Twenty years ago, when the most far-sighted among us pointed out the danger of our supremacy involved in the planting of our *Hevea* in the Orient, the burden of the reply made in a unanimous chorus was that our forests were limitless, and that there was no end to our inexhaustible riches in gums. And, indeed, up until the present time there has been no falling off in this respect. But who can say with certainty what the extent of our native resources is at the present time? It is a fact that some regions are only now beginning to be explored. From the shores of the prinicpal rivers the tide tends toward the middle districts, thence to the more inaccessible regions in the interior, but the way in which this was done and the expense and difficulties encountered—this is something that has never yet been properly appreciated and calculated.

We heard, too, a little while ago, Lieutenant-Colonel Rondon delight his audience at his lecture in the hall of our directors' hall with a magnificent description of those rubber plantations which, right after leaving the shores of the Paraguay, seemed to follow the explorers, describing curves and zig zag lines as far as the regions of the Madeira and the headwaters of its most important effluents.

The fact of the matter is that we must not fold our arms or indulge in any idle dreams on account of the quotations recently reached by rubber. Even admitting that the feverish excitement alluded to above may result for the purchasers of stock in the companies thickly crowding one another on the London Exchange, in a great disillusionment or tremendous loss, the sums that shall be applied to greater production and that will, for the most part, realize compensating returns, are bound to result to our decided disadvantage through the Asiatic planting in the future and the gradual increase of its influence in a not distant future on our markets of consumption.

NEW TRADE PUBLICATIONS.

THE FAULTLESS RUBBER CO.—Ashland Rubber Works (Ashland, Ohio) issue a catalogue of Hospital and Surgical Rubber Goods, embracing some of their high-class specialties for use in hospitals and sanitariums, which is attractively got up and especially in connection with the illustrations. [6" x 9". 20 pages.]

THE FIRESTONE TIRE AND RUBBER CO. (Akron, Ohio) issue a booklet on Carriage Tires, having reference to solids. The book is printed in two colors, giving better effect to the cuts than if they were only in black and white. [4¾" x 7¼". 12 pages.]

B. F. STURTEVANT CO. (Hyde Park, Massachusetts) issue a handsome brochure, "Standard Types of the United States Navy," ilustrated with a number of American warships, in connection with each of which are details of the Sturtevant fire room blowers and Sturtevant ventilating fans with which they are equipped. It may be suggested that if devices of their manufacture are good enough for warships, they may be found serviceable in the power houses and other departments of rubber factories. [10½" x 8". 24 pages.]

CENTRAL ELECTRIC CO. (Chicago) issue, under date of October 1, 1910, a new Price List and Discount Sheet applying to their Catalogue No. 26, of electrical apparatus and insulating materials. [6" x 8¾". 76 pages.]

ALSO RECEIVED.

The Webb Motor Fire Apparatus Co., St. Louis.=The Motor in the Fire Department. 52 pages.

Oswego Machine Works=Neil Gray, Jr., Proprietor, Oswego, New York.=Cutting Machines Exclusively. 79 pages.

Katzenbach & Bullock Co., Inc., New York and Trenton=Chemicals [for the rubber manufacturer]. 12 pages.

Home Rubber Co., Trenton, New Jersey.= [N B O Packing.] 8 pages. [O I M Packing.] 4 pages.

The Diamond Rubber Co., Akron, Ohio.= Little Voyages of Discovery. [Relates to the qualities of "Diamond" tires.] 16 pages.

THE National Board of Fire Underwriters have issued a new edition of their rules and requirements, applicable to different interests. One pamphlet contains rules regarding Sprinkler Equipments; another refers to Valves, Indicator Posts and Hydrants for Mill Yard Use; and so on. These will doubtless prove of interest in many rubber factories, as well as to industrial establishments generally.

A BOOK for rubber planters—Mr. Pearson's "What I Saw in the Tropics."

Recent Patents Relating to Rubber.

UNITED STATES OF AMERICA.

ISSUED SEPTEMBER 6, 1910.

NO. 969,160. Hose coupling. J. H. Hardy, Ipswich, Mass.
969,216. Hose coupling. J. H. Stephens, Vernon, Tex.
969,241. Vehicle wheel. [With tire of solid rubber tread blocks.] T. W. Baker, London, England.
969,389. Auto tire. F. Modlin, Sioux City, Iowa.
969,416. Adjustable rim and tire. H. C. Smith, Ainsworth, Neb.
969,425. Anti skidding device for wheel tires. [Metal tread plates.] P. C. Traver, Far Rockaway, N. Y., assignor to Pearsall-Traver Mfg. Co.
969,426. Anti skidding device coupling. *Same.*
969,439. Pocket pneumatic cushion. [for a seat, swimming pad, etc.] C. B. Archer, Milford, Mass.
969,464. Apparatus for forming hot water bags and other hollow rubber articles. G. D. Farnam, assignor to Star Rubber Co.—all of Akron, Ohio.
969,536. Vehicle wheel. [With solid rubber tire.] J. Illingworth, Newark, N. J.
969,657. Spray nozzle. J. Reade, Huntington, N. Y.
969,717. Tire. [Pneumatic.] L. M. Nelson, Pennington, N. J., assignor to Nelson Tire Co.
969,721. Detachable automobile tire tread. H. M. Pitman, assignor of two-thirds to I. Vaughan—both of Oakland, Cal.
969,722. Detachable automobile tire tread. H. M. Pitman, Oakland, Cal.
969,744. Anti skidding protector. G. W. Bierer, Pittsburgh, Pa.

Designs.

40,863. Rubber binding for matting ends or similar articles. C. H. Oakley, Trenton, N. J.

ISSUED SEPTEMBER 13, 1910.

969,779. Vehicle wheel rim. J. R. Gammeter, assignor to the United Rim Co.—all of Akron.
969,886. Wheel. [Circumferential socket for holding in place a segmental rubber tire.] J. C. Lighthouse, Rochester, N. Y.
969,887. Wheel. *Same.*
969,888. Wheel and tire. *Same.*
969,889. Sectional wheel tire. *Same.*
969,890. Wheel tire. *Same.*
[The five patents last named have reference to one system of tires and tire attachments.]
969,908. Pneumatic tire protector. E. Russell, Kansas City, Kans.
969,919. Hose and pipe mender. F. J. Stulp, Muskegon, Mich.
970,005. Demountable tire. V. Wildner, Chicago.
970,126. Vehicle wheel. H. Scullin, St. Louis.
970,164. Hose support. J. E. Austin, Fresno, Cal

Trade Mark.

52,028. Roberts, Johnson & Rand Shoe Co., St. Louis. The fanciful picture of a boy and girl, with the words *Tess and Ted.* For leather and rubber shoes.

ISSUED SEPTEMBER 20, 1910.

970,535. Vehicle tire. [Solid rubber, with special rim.] W. D. McNaull, Toledo, Ohio.
970,734. Treatment of leather with india-rubber. A. McLennan, London, England.
970,767. Water bottle. A. L. Swingle, Putney, S. D.
970,907. Hot water bandage. [A fluid containing bandage comprising a flexible hollow cylindrical member and constituting a reservoir which may be wrapped conveniently around different portions of the body—the foot, for instance.] J. E. Forbes, Kopple, and B. A. Barr, McKees Rocks, Pa.

Trade Mark.

51,215. A. G. Spalding & Bros., New York City. The words *Baby Dimple.* For golf balls.

ISSUED SEPTEMBER 27, 1910.

971,021. Knife or tool for tapping rubber and other gum trees. R. W. Cater, West Croydon, and G. V. A. Schofield, London, England.
971,100. Cushioned vehicle wheel. M. H. Aldridge, Plattsburg, N. Y.
971,246. Protector for pneumatic tires. O. A. Brictson, Brookings, S. D. [Described in THE INDIA RUBBER WORLD, October 1, 1910—page 33.]
971,301. Tire casing. J. W. Moore, Huntsville, Ala.
971,318. Vehicle wheel rim. E. C Shaw, assignor to the United Rim Co.—all of Akron, Ohio.
971,384. Wheel for vehicles. C. Kindscherf, assignor to the Continental Caoutchouc und Gutta-Percha Co.—all of Hanover, Germany.
971,415. Buffer and other spring constructed with india-rubber. A. G. Spencer, London, England.

Trade Mark.

51,625. Ford Mfg. Co., Chicago. The word *Aquaproof.* For prepared rubber roofings.

[NOTE.—Printed copies of specifications of United States patents may be obtained from THE INDIA RUBBER WORLD office at 10 cents each, postpaid]

GREAT BRITAIN AND IRELAND.

PATENT SPECIFICATIONS PUBLISHED.

The number given is that assigned to the Patent at the filing of the application, which in the case of these listed below was in 1909.

**Denotes Patents for American Inventions.*

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, SEPTEMBER, 7, 1910.]

11,080 (1909). Spring wheel having a compressed air cushion and solid rubber tread. J. Spyker, Amsterdam, Holland.
11,135 (1909). Electric cable insulated by a layer of vulcanized bitumen between two layers of vulcanized rubber, and provided with a layer of rubber coated tape and an outer braiding. British Insulated and Helsby Cables, Ltd., Helsby, and two others.
*11,137 (1909). Waterproof cover for ladies' hats. E. A. Kendall, New York City.
*11,175 (1909). Hose having a layer of asbestos fabric, which may or may not have strengthening wires, between layers of rubber. R. J. Evans, Franklin, Pennsylvania.
11,176 (1909). Wheel with two rims side by side. H. R. Krastel, Frankfort o/M., Germany.
11,178 (1909). Pneumatic tire with means of preventing the displacement of security bolts. F. P. Edwards, Salisbury.
11,180 (1909). Wheel with two or more rims side by side. O. Lefevre, Neuilly-sur-Seine, France.
11,311 (1909). Pneumatic tire with steel non skid plates. S. B. Seropian, Nenagh, Tipperary.
11,340 (1909). Waterproof composition. A. M. Hart, London.
11,382 (1909). Solid or cushion tire. L. Liais, Paris, France
11,383 (1909). Solid or cushion tire. L. Liais, Paris, France.
11,532 (1909). Boot heel. J. G. and V. Tomkins, Elsternwich, Australia.
11,557 (1909). Spring wheel in which resiliency may or may not be increased by the use of rubber. E. Rimailho, Neuilly-sur-Seine, France.
11,560 (1909). Cushion tire with thick rubber tread. L. E. Cowey, London.
11,592 (1909). Sole and heel protector. A. E. Walkden, Liscard, Cheshire.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, SEPTEMBER, 14, 1910.]

11,752 (1909). Tire having a clincher cover filled with an elastic spongy material. R. J. Caldwell, New Southgate, and Pneumatic Syndicate, London.
11,786 (1909). Tire having an ordinary outer cover enclosing radial rubber pillar supports surrounded by helical springs. W. Stansfield, Stockport.
11,965 (1909). Composition for self sealing pneumatic tires consisting of treacle, pumice stone, and plaster of Paris. J. Jeffrey, Handsworth, Staffordshire.
11,969 (1909). Pneumatic tire with cork filling between the air tube and cover. J. C. Barker, Leeds.
12,031 (1909). Mechanism for use in the making of pneumatic tires. T. Sloper, Devizes, Wiltshire.
12,041 (1909). Puncture closer for tires. R. Sampson, Montreal, Canada.
12,103 (1909). Spring wheel with rubber tread. H. Fokker, Haarlem, Holland.
*12,250 (1909). Apparatus for devulcanizing india-rubber. M. C. Clark, Providence, Rhode Island.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, SEPTEMBER 21, 1910.]

12,303 (1909). Football boot. A. Tyree & Co., Christchurch, New Zealand.
12,386 (1909). Pneumatic tire with metal tread. J. F. F. W. Ure, Chelsea, London.
12,424 (1909). Ebonite capable of resisting the action of chlorine and alkalies. M. Wildermann, Ealing, London.
12,524 (1909). Cap for motorists. B. Phillips, Grimsby.
12,596 (1909). Non skidding protector for pneumatic tires, consisting of a solid rubber band furnished with an inextensible wire placed in a circumferencial groove in the cover. M. F. Blake, London.
12,610 (1909). Puncture proof band for tires. W. F. Macmullen and H. J. Parfitt, Torquay, Devonshire.
12,687 (1909). Compound for coating fabrics. G. H. Winterbottom, Manchester, and another.
*12,902 (1909). Spring wheel with rubber tread. W. G. Marr, Easthampton, Mass.
*12,903 (1909). Special tread for pneumatic tires. H. B. Parham, New York City.
*12,904 (1909). Non slipping sole for boots. J. G. Doughty and J. R. Sanford, Winsted, Conn.

[ABSTRACTED IN THE ILLUSTRATED OFFICIAL JOURNAL, SEPTEMBER 28, 1910.]

12,926 (1909). Tires formed wth oblique grooves on the treads, to prevent skidding. H. D. Strachan and W. Strachan, Edinburgh.
*12,973 (1909). Device for marking golf balls. W. T. West, Camden, N. J.
*12,975 (1909). Tire inflating pump. E. J. Rohrbacher, Blaine, Wash.
12,977 (1909). Spring wheel with solid rubber tire. E. C. R. Marks, London. (M. A. Hodgson, Toronto, Canada.)
*13,088 (1909) Non skid tread device of chains for pneumatic tires. T. H. Curtis, Louisville, Kentucky.
13,195 (1909). Construction of rubber overshoes. A. S. Douglas, Edinburgh.

13,211 (1909). Protective cover for pneumatic tires. A. Constantin, Hanover, Germany.
13,212 (1909). Spring wheel with rubber tread. G. Debladis, Paris, Francis.
13,214 (1909). Cover for pneumatic tire. J. Fulton, Paisley.
13,336(1909). Pad for crutches, chair legs, and the like. G. H. Hickson, Stockton-on-Tees.
13,375 (1909). Elastic stud tire. J. Cairns, Willenhall, Staffordshire.

THE FRENCH REPUBLIC.

PATENTS ISSUED (with Dates of Application).

413,738 (Feb. 19, 1910). J. Knight. Demountable tire.
413,890 (March 21). Boutiny and Laporte. Collar for tire repairs.
413,800 (March 17). C. Dreyfus, A. Friedl, and The Clayton Aniline Co., Ltd. Process for purifying rubber.
414,155 (June 11, 1909). Michelin et Cie. Process for rendering balloon tissues impermeable.
414,113 (March 22, 1910). D. Lance. Tire inner tube.
414,166 (March 26). Cartaret. Tire and rim for vehicle wheels.
414,031 (March 25). M. Francand. Heel pad.
414,120 (March 25). W. L. Dinnsmoor. Vulcanizer
414,280 (March 2) J. L. Jackson. Demountable rim for pneumatic tires.
414,304 (June 15, 1909). H. F. Morel. Process for rendering balloon fabrics impermeable
414,327 (March 24, 1910). J. Richardson. Tire protector.
414,440 (April 4). The Nelson Tire Co. Elastic tire.
414,544 (April 7). T. C. Mussen and J. H. Waldman. Elastic tire.
414,760 (April 12). C. H. Scott. Manufacture of linoleum.
414,761 (April 12). C. H. Scott. Apparatus for the manufacture of linoleum.
414,762 (April 12). C. H. Scott. Devices for printing designs on linoleum.
414,844 (April 15). The Sheated Tube Co., Ltd. Pneumatic tire
414,759 (April 12). L. C. A. de Clerez. Rubber recleaning process.

[NOTE.—Printed copies of specifications of French patents can be obtained from R. Robet, Ingenieur-Conseil, 16 avenue de Villier, Paris, at 50 cents each, postpaid.

THE RUBBER TRADE IN CANADA.

CANADIAN imports of manufactures of india-rubber and gutta-percha for the fiscal year ended March 31, 1910, by countries, are officially stated to have been in value as follows:

	United States.	Great Britain.	Other Countries.	Total Value.	Duties Collected.
Boots and shoes..	$112,583	$1,887	$.....	$114,470	$28,801
Belting	51,141	13,517	163	64,821	16,827
Clothing and waterproof cloth	45,871	210,724	410	257,005	64,234
Hose	91,983	1,397	4	93,384	31,691
Packing and mats.	68,882	5,613	348	74,843	25,712
Vehicle tires	158,023	32,517	3,759	194,299	65,107
All other	478,869	113,009	49,634	641,512	166,493
Total, 1909-10..	$1,007,352	$378,664	$54,318	$1,440,334	$398,865
Total, 1908-09...	682,919	183,019	35,637	901,575	253,279
Total, 1907-08...	666,307	182,360	49,457	898,124	247,898
*a*Total, 1906-07..	476,444	68,957	30,490	575,891	158,244
*b*Total, 1905-06...	680,014	99,695	32,034	811,743	100,879

a For nine months ended March 31, 1907.
b For fiscal year ended June 30, 1906.

Imports from Germany amounted in value to $40,693, against $22,209 in the preceding year, and $27,815 in the twelvemonth ending March 31, 1908. The imports from all other countries than the United States, Great Britain, and Germany amounted only to $13,625.

There may also be noted the following imports, not classified by the customs as "rubber goods," but having a relation to the industry:

	United States.	Great Britain.	Other Countries.	Total Value.	Duties Collected.
Webbing, elastic and non-elastic.	$234,228	$56,444	$11,503	$302,175	$56,380
Stockinettes for rubber footwear	62,439	14,440	.....	76,879	10,837
Duck for rubber belting and hose	67,536	10,290	.....	77,826	free
Rubber thread ...	4,836	.....	.....	4,836	free

EXPORTS OF CANADIAN RUBBER GOODS.

Belting	$28,386	Clothing	$5,732
Hose	5,021	All other	56,398
Footwear	129,618		
Mats and matting.....	317	Total	$225,472

Distribution of Rubber Goods Exports.

To—	Value.	To—	Value.
Great Britain	$34,283	Argentina	$102
Australia	36,824	Brazil	88
New Zealand	32,154	France	1,651
Newfoundland	30,629	Belgium	7,498
British Guiana	604	Denmark	856
British West Indies..	25	Italy	33
Other British Possessions	9	Norway	95
United States	59,104	Japan	1,523
Mexico	19,994	Total	$225,472

Comparison with Former Exports.

Year ended March 31, 1909.....	$236,083
Year ended March 31, 1908.....	239,983
Nine months ended March 31, 1907.....	169,294
Year ended June 30, 1906.....	266,504
Year ended June 30, 1905.....	170,359

IMPORTS OF RAW MATERIALS.

	Pounds.	Value.
India-rubber and gutta-percha.....	3,099,409	$3,555,507
Rubber recovered; rubber substitute; hard rubber in sheets.....	4,189,424	698,424
Rubber, powdered, and rubber waste....	2,669,541	257,944
Total, 1909-10	9,958,374	$4,511,875
Total, 1908-09	6,124,882	2,483,570

CANADIAN IMPORTS OF RUBBER TIRES.

Imports of the rubber tires (for vehicles of all kinds) are reported by the customs service in Canada in more detail than in other countries. The following official statements of value are for fiscal years ended March 31:

	1907-08.	1908-09.	1909-10.
Great Britain	$10,326	$10,732	$32,517
France	931	1,484	2,730
Germany	1,287	564	1,029
United States	81,555	96,795	158,023
Total	$94,099	$109,575	$194,299

Imports of automobiles and other motor vehicles during the past fiscal year amounted to 1,437, valued at $1,816,164, of which the United States contributed 1,345 machines and Great Britain 78. The value of such imports for the preceding year was $585,097. Imports for the three months, April-June, 1910, amounted to $1,379,387.

THE PAN AMERICAN UNION.

THE name "The Pan American Union" has been adopted for what has been known hitherto as "The International Bureau of the American Republics," the headquarters of which are in Washington. This is in accordance with a resolution adopted at the fourth International Conference of American Republics, held recently at Buenos Aires. This was the most important of the conferences held in the series, and its results doubtless will be seen in a better understanding between the people of the several republics and closer commercial relations between North and South America. A very full summary of the proceedings at Buenos Aires appears in the valuable *Bulletin* of the Pan American Union, published at Washington, in its issue for October, 1910.

THE second annual report of the Pope Manufacturing Company (Hartford, Connecticut) for the year ending July 31, 1910—the first complete fiscal year of the company, as reorganized—shows sales for the year of $4,010,199.94, an increase of $1,166,458.53 over the sales of the preceding twelve months, and net earnings of $745,390.87. Dividends paid during the year amounted to $368,054, and the surplus at the end of the year was $860,203.63.

The B. F. Goodrich Company

Akron, Ohio

In the Building on the corner (on the left) are the General Offices

The Two Large Buildings on the right are devoted almost entirely to the departments of Tire building

NEW YORK BELTING AND PACKING CO., Ltd.

MANUFACTURERS OF A COMPLETE LINE OF HIGH GRADE

MECHANICAL RUBBER GOODS

Including Cobb's Piston & Valve Rod Packing, Indestructible White Sheet Packing
Vulcan High Pressure Spiral Packing, "1846" Para Rubber Belting,
Magic Garden Hose, Air Brake, Air Drill, Steam,
Suction, Water Hose, etc.

Original Manufacturers of Interlocking Rubber Tiling.

Nos. 91-93 CHAMBERS STREET, NEW YORK

ECCE SIGNUM.

THOROUGHLY RELIABLE.

The policy of furnishing only the finest goods that can be produced with perfect materials, latest and best machinery. and highly skilled workmen of long experience, has been, is now, and will continue to be, the policy of

The Mechanical Rubber Company,

CHICAGO, ILL.

Branch Store, No. 1810 Blake Street, Denver, Colo., where we carry a full line of goods.

Manufacturers of all kinds of rubber goods for mechanical uses—Hose, Belting, Packing, Gaskets, Bicycle Tires, Specialties, Moulded Goods, Etc., Etc.

If you are unable to satisfy your trade with goods you are supplying,
If you are in search of good goods at fair prices,
If you cannot get quick deliveries,
If you are not getting fair value for your money,
IN ANY EVENT,

SEND TO US FOR SAMPLES AND QUOTATIONS. . . . .
WE CAN SUIT YOU EVERY WAY.

FACTORY, GRAND AVE. & ROCKWELL STS

THE MECHANICAL RUBBER CO., 230 Randolph St., Chicago, Ill.

The Rubber Trade in San Francisco.

By a Resident Correspondent.

THERE are some jobbers who see no difference in trade conditions this month from what has prevailed during the past six months; others, however, say that there is a little improvement over last month, and that orders for next season are coming along very favorably; others still are certain that business is as dull as it possibly could be, and insist that it is worse now than at this time last year; again others who express the greatest surprise that any one should complain of its being quiet even, because they are finding a demand for goods that is extremely pleasing to them. Such divergence of opinion is an indication at least that there are waves of good as well as bad business, and that with things stirring in such a manner it is probable that on the average a very satisfactory trade condition exists. The city trade is admittedly quiet, though gradually showing improvement. Outside of San Francisco, business generally speaking is good, and all things point to better times in the near future.

* * *

As intimated in this paper two months ago, The B. F. Goodrich Co. (Akron, Ohio), have definitely decided to open direct branches on the Pacific coast, and with that object in view have established an office in the Pacific building, on Market street, with Mr. Kirkpatrick in charge, and have gone so far in San Francisco as to have leased a new building on the south side of Market street. The new building is five stories with basement, and has been leased for a term of five years. The firm will be ready to occupy the building with its San Francisco branch about the first of the year. Mr. Kirkpatrick was formerly in charge of the Goodrich tire business of the Gorham Rubber Co. at that firm's branch store on Golden Gate avenue. The Gorham Rubber Co. have been the Pacific coast agents for the Goodrich company for many years, and the change as now contemplated does not affect any part of the agency other than that of the Goodrich tires. That is, the Gorham Rubber Co. will continue to handle all of the Goodrich company's rubber goods for mechanical purposes, druggist's sundries and the like for the entire coast through their stores in this city, Los Angeles, Portland, and Seattle, while the Goodrich company will establish stores in those cities to handle their tire business directly. This leaves the Gorham company without a tire line, and W. J. Gorham and Mr. Heckmann are now visiting certain factories in the East for the purpose of making arrangements for representing some line of automobile tires.

* * *

MR. GEORGE E. HALL, general manager of the Boston Woven Hose and Rubber Co., has been visiting San Francisco and the local manager of the company, Mr. Joseph V. Selby, for the past few days. This was Mr. Hall's first visit to the coast, and he naturally found it one of considerable interest aside from purely business matters, and he expressed himself as being greatly impressed with the remarkable progress of the Far West, and the rebuilding of San Francisco. While here he was entertained at a specially called luncheon of the Pacific Coast Rubber Manufacturers' Association.

* * *

THE annual meeting and election of officers of the Pacific Coast Rubber Manufacturers' Association was held at the Palace Hotel on September 22. The following houses were represented: The American Rubber Manufacturing Co.; the Bowers Rubber Works, Eureka Fire Hose Manufacturing Co., Goodyear Rubber Co., Gorham Rubber Co., Pacific Coast Rubber Co., New York Belting and Packing Co., Limited, Boston Woven Hose and Rubber Co., Revere Rubber Co., Gutta Percha and Rubber Manufacturing Co., and Boston Belting Co. Mr. W. F. Pierce, of the Revere Rubber Co., was elected president; Mr. Henry Martine, of the Gutta Percha and Rubber Manufacturing Co., was elected as vice-president; and Mr. F. G. Sargeant, of the Gorham Rubber Co., treasurer. The new members of the executive committee are W. F. Pierce (chairman); C. F. Chase, of the Bowers Rubber Works; W. E. Crandley, of the Crandley Rubber and Supply Co.; A. H. Gregory, of New York Belting and Packing Co., Limited; and C. F. Winslow, of the Pacific Coast Rubber Co.

* * *

THE Barton Packing and Rubber Co., at No. 531 Howard street, have concluded to devote their exclusive attention to the manufacturing department, which has grown to considerable importance, and with this object in view Mr. Barton has discontinued the jobbing end of the business. R. J. McNeilly, who has acted as sales manager, and Frank Jones, salesman, have both left this firm, and have associated themselves with the Revere Rubber Co.

* * *

THE Western Belting and Hose Co. are now located at No. 518 Mission street, having moved from the former location on Main street. This firm now have the Walker's Fire Engine account, which they report is moving very actively. In fact they report that the past month has been unusually good with them and that business is keeping up fine. Mr. N. S. Dodge, president of the firm, is now on a trip East. The firm were recently favored with a visit from Mr. B. S. Gibbs, from the Manhattan Rubber Manufacturing Co.

* * *

MR. F. S. WINSLOW, manager of the Pacific Coast Rubber Co., of San Francisco, has gone for a trip to New York, making his headquarters with The United States Rubber Co.

Mr. Kelly, from the Republic Rubber Co., is now visiting on the coast. He will return to San Francisco after a visit of a few days in the southern part of the state.

Mr. Selby, the Pacific coast manager of the Boston Woven Hose and Rubber Co., notes it as his impression that business for 1911 is looking a little brighter at this time than it did thirty days ago.

F. C. Anderson, at No. 422 Mission street, sold out on October 3, to the Electric Hose and Rubber Co.

The American Belting and Fabric Co. have been incorporated at Oakland.

* * *

THE board of supervisors of San Francisco have framed an ordinance whereby itinerant merchants and vendors will be charged a license of $50 per day for engaging in business in this city. This is for the purpose of protecting the established merchant who pays taxes and bears the burdens of government from that class of retailers who open up after the tax levy, and engage in business for a month or two, wherein they dispose of some job lot of rain coats, rubber coats, or what not, and then depart.

RUBBER FACTORY FOR BRAZIL.

THE *Gummi Zeitung* learns that a rubber goods factory is to be established in Jundiahy, near Sao Paulo, Brazil, with an initial capital of 300 contos [=about $100,000]. The city government supports the enterprise, by the remission, for a term of ten years, of all municipal charges and by the contribution of 10 contos towards the purchase of a factory site.

THE B. F. GOODRICH CO.'S BRANCH.
[Nos. 1110-1112 Race street.]

GOODYEAR TIRE AND RUBBER CO.'S BRANCH.
[East Seventh street, near Main.]

VULCANIZING PLANT AT THE GOODRICH BRANCH.

THE DIAMOND RUBBER CO.'S BRANCH.

THE RUBBER TIRE TRADE IN CINCINNATI.

The Rubber Trade in Cincinnati.

By a Resident Correspondent.

RUBBER manufacturers throughout the country are realizing that the "Queen City" is the logical point from which to bid for business in the South, and that this city is the gateway through which Dixie's industrial progress passes. Within a few months past there have sprung up a number of branch houses of prominent rubber companies who have come to look upon Cincinnati as the headquarters for their business in the southland.

Among the first to come to this realization was The B. F. Goodrich Co., of Akron. About four months ago this company sent representatives to Cincinnati to establish a branch house. It was discovered that a building that would answer all purposes was not available, and a site was then looked for upon which the company could erect its own building. A site was secured at Nos. 1114-16 Race street, on which a long term lease was consummated. An architect was employed and plans for a building were prepared, before the general public was aware of what was in prospect. The building has now been completed, and the new branch is now in full operation.

In point of architecture and appointments, the Goodrich building is one of the attractive business buildings in this city, and is an ornament to that section in which it is located. The building is 21 x 110 feet, with sandstone front and of reinforced concrete, making it fireproof. There are two stories and basement. The first floor is given over to offices and salesrooms. The second floor is devoted to the mechanical department. Here is equipped one of the most complete outfits to be found anywhere outside of a rubber factory. A pot heater for recovering tires has been installed which will accommodate any size tire from a 26x3 to a 43x6. This pot heater is one of the largest in the country. Beside a pot heater there are several vulcanizers, steam tables and other machinery to be found only in a rubber factory.

The installation of a mechanical department in connection with the new Goodrich branch was for the purpose of lessening time in making repairs. Instead of sending tires to the factory at Akron, they are shipped direct to the Cincinnati branch from the South to be repaired. The basement is given over to a stock room and here is to be found one of the largest stocks of rubber goods to be found in any city in the country.

The illustration shown in this paper of The B. F. Goodrich Co.'s repair department is one of the most complete and modern tire repair plants possible. Furnishing its own steam with its own steam vulcanizer and patching press, it will no longer be necessary to send tires to the Akron factory for retreading, or, indeed, any kind of repairs. The equipment covers every type of repair that is practical, for both shoes and inner tubes.

The Goodrich company are installing a high-pressure tank which will have an air line running to the front and rear of the building. This will afford automobilists opportunity of filling their tires at all times. The tank will have a pressure of 100 pounds.

The local Goodrich branch is in charge of Mr. J. V. Blake, who was formerly on the road for the company, covering the Michigan territory. The territory covered from the local branch comprises southern Ohio, all of Kentucky, part of Tennessee, part of West Virginia, and southern Indiana. At Louisville, Kentucky, is to be operated a depot in connection with the Cincinnati branch, and this depot will be in charge of an expert mechanic from the factory.

* * *

THE Diamond Rubber Co., of Akron, have leased a building at Nos. 807-809 Race street, which has been completely remodeled, so as to accommodate it to the needs of the company for this territory. The building is 26 feet wide and two stories high. It has a stone front and is a fine specimen of architecture. The first floor is given up to offices and salesrooms, while the second floor is used as a stock room, and a complete line is carried. The offices are among the most up-to-date offices in the city.

The Diamond branch is in charge of Mr. Edwin B. Tozier, and the territory covered is similar to that covered by the Goodrich company from this point. A branch in this city is not new with the Diamond, for it has maintained a branch in this city on Elm street for some time, and also an agency. The branch handled pneumatic tires, while the agency handled solid tires and rubber goods. These two have been combined and are now being operated from the new branch.

* * *

NOT to be outdone by its competitors, the Goodyear Tire and Rubber Co., of Akron, have expanded and secured a building in the heart of the automobile district of the city. This company has leased for a long term a building on East Seventh street, near Main. Within a radius of one block from this building there are more automobile salesrooms than in any other section of Cincinnati. Mr. H. L. Smith is in charge of the Goodyear branch as manager. The territory covered by the company from this branch is similar to that covered by the Goodrich and the Diamond.

* * *

MORGAN & WRIGHT, of Detroit, have also joined the Cincinnati colony, having a branch on Main street near Eighth. It is reported that this company are looking for larger quarters, and in the event that a suitable building cannot be found, it is the intention of the company to build its own structure.

During the past several days, the Hartford Rubber Works Co. have had representatives in this city, looking for a building for the purpose of establishing a branch. It is reported that this company will also erect their own building here very shortly.

Besides the above mentioned companies having branches here, the Firestone, Swinehart, and Kelly-Springfield companies operate branches in Cincinnati.

* * *

RUBBER tire manufacturers, and especially those who have branch houses in Cincinnati, are much interested in the announcement of a plan to establish an independent or coöperative tire manufacturing plant. The question of establishing such a plant, to supply all auto owners who are members of the American Automobile Association with tires at cost originated with the Cincinnati Automobile Club at a recent meeting, and a committee has been appointed to meet with officials of the American Automobile Association with a view of interesting the latter in the scheme.

The originator of the plan is Mr. H. C. Mather, who is connected with the Charles H. Moore Oil Co., of Cincinnati. In speaking of his plan, Mr. Mather states that it is his opinion that manufacturers of automobile tires are demanding too much money for their products, in view of the fact that rubber has slumped sharply in price of late. He believes the only solution of the automobile tire problem in this country lies in the suggestion that the American Automobile Association operate its own factory and manufacture tires, and that the product be sold to members of the Association only at as nearly cost as possible, the primary idea not being to make money from the enterprise.

According to the plan of Mr. Mather, he would have all members of the Association subscribe to a number of shares of

stock and that if each member would subscribe to $300 or $400 worth of stock the amount that could be raised would be sufficient to operate a large plant and maintain it. Managers of the local branches of the big rubber tire manufacturers when seen relative to the scheme proposed by the local automobile club, looked upon the scheme with considerable doubt if such a plan could be worked out.

* * *

COUGHLIN & DAVIS, who are reputed to be the largest buyers of automobile tires in the Central West and who carry all the leading makes in stock, have dissolved partnership, Mr. C. D. Coughlin retiring from the firm. This firm is well known in the rubber trade throughout the United States. Mr. J. R. Burgamy, who for a number of years has been city salesman for Morgan & Wright, has resigned to associate himself with Coughlin & Davis.

* * *

THERE was argued in the United States court of appeals in this city several days ago and submitted, the case of the Rubber Tire Wheel Co., and the Consolidated Rubber Tire Co. against the Goodyear Tire and Rubber Co. The suit was originally brought because of an alleged infringement of certain patents. Rubber manufacturers throughout this section are interested in the decision of the court of appeals with reference to this case.

* * *

LOCAL rubber dealers, together with Cincinnati chemists listened recently to an interesting discussion of "Protal-Backelite," a new substitute for rubber. An interesting paper describing the new substitute was read before the Cincinnati chapter of the American Chemical Society at its meeting in this city several days ago by Professor H. M. Goetsch, of the University of Cincinnati. The speaker contended that the new substitute would ultimately oust rubber from its present monopoly, and would go far toward keeping down the price of rubber. Professor Goetsch declared that Protal has been found by demonstration to be adapted for automobile tires, as well as all the uses of hard rubber.

The Rubber Trade at Akron, Ohio.

By a Resident Correspondent.

THE shareholders of The Diamond Rubber Co. held their annual meeting on October 19, when the old directors were reëlected, with the exception that G. E. Norwood, assistant treasurer, was placed on the board to fill the vacancy caused by the retirement of O. S. Hart, who resigned and is now traveling. Mr. Hart was cashier of the company. The board now stands: F. A. Hardy (Chicago), Ohio C. Barber, A. H. Marks, W. B. Miller, R. C. Lake (Chicago), G. E. Norwood, and A. H. Noah. The directors met and reëlected the officers as follows:

President—F. A. HARDY.
Vice-President—A. H. MARKS.
Secretary—W. B. MILLER.
Treasurer—A. H. NOAH.

The reports submitted showed a year of unprecedented prosperity, and expressed the prediction that the coming season will not be dull, by any means. "We have a great deal of raw material on hand," Treasurer Noah said, "and have enough contracts to make the outlook very encouraging." During the year the company have erected four new buildings, increasing the working floor space to 31 acres, and added 1,200 to the number of employés, the clerical and selling forces now amounting to 5,500. The company have obtained exclusive rights for the manufacture of the Palmer Cord tire, controlled by the India-Rubber, Gutta-Percha, and Telegraph Works Co., Limited, of Silvertown, London. The dividend declared for the year was 14 per cent.

* * *

One of the very large structures that The B. F. Goodrich Co. are adding to their plant is a manufacturing building which, when completed, will be 100x500 feet long, and six stories high. The first unit of this building, the construction of which is now under way, will be 100x140 feet. The basement will be used entirely for belt and mat presses, the ground floor for belt making, and the second floor for the manufacture of mats. The uses of the other floors have as yet been undetermined. The building will have two high-speed electric freight elevators. The form of structure consists of riveted steel columns and girders protected by concrete, and reinforced concrete floors. The walls are of brick, and the building fireproof throughout.

* * *

The American Tire and Rubber Co., capitalized at $200,000, [see THE INDIA RUBBER WORLD, October 1, 1910—page 30] and whose chief claim to distinction lies in the possession of a secret of mechanical process for reclaiming rubber, have purchased a site and will begin work upon the construction of a factory at once, it is announced. The company will manufacture carriage and vehicle tires, as well as automobile tires, inner tubes, and a general line of mechanical goods. The officers of the concern are Adam Duncan, president; Gilbert C. Waltz, vice president; F. L. Kryder, secretary and treasurer, and W. J. Yeager, superintendent.

* * *

THE department of rubber chemistry of Buchtel College, it is expected, will receive much of the attention of the Ohio State Academy of Science when that organization meets at the Knight chemical laboratory of the college on November 24-26. At a general meeting to be held the last day of the meeting, the scientific side of the rubber industry will be discussed, and an address probably will be delivered by some one, as yet unselected, who is well versed in rubber.

* * *

W. W. WILDMAN, general manager of the United Rubber Co., of Barberton, has been selected a director of the new Portage Rubber Co. to succeed Will Christy, who recently explained in a public statement that he had severed his connection with the company because, he said, its promises of profits to the prospective investor were too glowing. The Portage company are to invest $100,000 of its $500,000 cash capital in the business of the United Rubber Co., the reclaiming capacity of which is to be doubled.

* * *

THE rapid growth of the Goodyear Tire and Rubber Co. is evidenced not alone by the construction in Akron of several large buildings, but by its continual branching out as well. An office has been opened in Toledo, Ohio, under the management of M. M. Norton, and another branch, opened recently in Dallas, Texas, is in charge of Herman Coulter.

Mr. G. M. Stadelman, secretary of the Goodyear Tire and Rubber Co., is combining business with pleasure on a vacation trip upon which he set out not long ago, bound for the picturesque wilds of northern Canada. Returning, he will visit Goodyear agencies along the Pacific coast and throughout the West.

Mr. Frank E. Cooke, of the Bruner-Goodhue-Cooke Building and Loan Association, says that so many Akron people have invested their savings in rubber stocks that a consequent marked money tightness has been noticeable for several months past.

Failure of shipments of iron to arrive will delay the completion of the Firestone Tire and Rubber Co.'s new office and factory buildings until after the first of the year.

THE FIRESTONE TIRE AND RUBBER COMPANY'S SALESMEN'S CONVENTION.

Top Row.—H. E. Riker, R. E. Wolcott, F. H. Moyer, L. Greenwald, C. A. Myers, Ole Hibner, W. E. Fouse, A. W. Moore, H. L. Beers, J. P. Patterson, K. R. Corner, H. Kubler, C. H. Gerhold, P. B. Talbott, E. M. Humphrey, H. C. Brenizer, J. W. Thomas.

Second Row.—E. P. Palmer, L. F. Birdsong, A. L. Schavoir, O. E. Johnson, F. C. Burt, H. E. Esterly, F. W. Telford, R. L. Harpham, F. M. Moore, G. M. Martin, Geo. Eckel, P. F. Rohrbacher, C. M. Folger, G. A. Talbott.

Third Row.—W. H. Jenks, N. B. Burwell, H. W. Makley, W. F. Ridge, W. G. Bedford, R. D. Barr, R. W. Phelps, R. W. Ingersoll, J. F. Cast, Wm. O'Neil, W. A. Simonson, W. L. Esterly, J. H. Irwin, F. E. Gahagan.

Fourth Row.—W. A. Clark, C. C. Eichelberger, S. N. Harris, J. G. Robertson, S. G. Clarkhuff, R. J. Firestone, H. S. Firestone (Pres.), A. C. Miller, Will Christy, T. J. Glenn, E. L. Campion, W. F. West, W. A. Harshaw, O. Fenstermacher, A. F. Sheldon.

Fifth Row.—R. H. Turner, W. C. Mayville, C. E. Jackson, J. V. Mowe, D. C. Swander, W. R. Walton, F. H. Martin, Chas. Habhegger, W. H. Rowerdink, R. E. Warner, A. G. Partridge, O. A. Lazenby, F. L. Black, W. T. Brown, D. B. Price.

Bottom Row.—J. A. Smith, J. F. Singleton, E. S. Firestone, W. W. Robertson, P. B. Bosworth, B. N. Beedon, D. F. White, W. F. Bailey.

In the early days of the Diamond Rubber Co., C. H. Palmer, who retired a few days ago from the Diamond Match Co., sold a third interest in the enterprise for $32,000. To-day, it is estimated he could have collected about $9,000,000 on proportionately the same amount of stock.

The Firestone Tire and Rubber Co. are shortly to open a new branch office in San Francisco, especially adapted for the storage of tires, and as a general exhibiting point for the Pacific coast.

FIRESTONE COMPANY'S ANNUAL CONFERENCE.

THE recent yearly conference of the officers, branch managers, agents, and salesmen of the Firestone Tire and Rubber Co., at Akron, Ohio [see THE INDIA RUBBER WORLD, October 1, 1910—page 26], was by all odds the best the company have ever held. It was not only full of enthusiasm but of great value to those present. The illustration on this page shows the Firestone selling organization, while in the background is the framework of a new factory, which is said to include the largest single building in the world devoted to the manufacture of tires. The names of those in attendance are printed under the illustration on this page.

The main building of the new plant covers a ground space of 265 x 360 feet. The basement and first floor cover this entire space, but the upper floors are cut into by courts for purposes of ventilation and light. As the company confine themselves to the tire manufacture, the whole structure may be designated as a tire building.

The Firestone Company were referred to recently as having booked already for the coming season orders for automobile tires of a value exceeding $2,000,000. They naturally are not pessimistic as to the trade outlook.

AN OLD GUTTA-PERCHA PIPE.

WHILE strolling on the sand at Rockaway Beach, near New York, recently, Mr. John J. Ridgway, engaged in the conveyor belting business at No. 207 Fulton street, came across an odd section of piping, which evidently had been buried there for a long period. No one in the vicinity could explain the presence there of such an article, and no one in the trade to whom it was exhibited was prepared to give any account of its history. Without doubt this is a relic of the gutta-percha water pipe system installed sixty years ago, to connect New York city with adjacent islands. In 1850 a contract was made with the American Gutta-Percha Co. (now the Bishop Gutta-Percha Co.) to lay a pipe from the foot of East Seventy-ninth street to Blackwell's island. This pipe was 3 inches outside diameter and ⅜ inch thick, made in lengths of 9 feet. These were joined by inserting one end of each length into the end of the next, while heated in hot water, thus making a permanent joint. For the purpose of anchoring the pipe on the bed of the river, collars of gutta-percha were placed round the pipe at regular intervals and over these cast iron anchors were hung. Subsequently other gutta-percha pipes were in service around the city, some of them as recently as 1868, but these varied in construction from the pipe first mentioned in this article. From its appearance the section found by Mr. Ridgway seems likely to have been a relic of the first pipe laid. A fuller account of the gutta-percha water pipe appeared in THE INDIA RUBBER WORLD, June 10, 1896 (page 261).

A BOOK for everybody interested in tires—"Rubber Tires and All About Them"—this office.

THE RUBBER TRADE IN CHICAGO.

BY A RESIDENT CORRESPONDENT.

THE recent decline in the price of crude rubber is now having its effect on the rubber goods trade, and is reflected through the Chicago branches of the Eastern houses. The railroad companies and the industrial concerns who buy the bulk of the rubber goods distributed in Chicago are not buying as freely as they were a month or two ago, evidently looking for a drop in the prices of manufactured products. They do not seem to take into consideration the fact that the present stocks of goods in the hands of supply houses and manufacturers are based upon crude rubber at the old price.

Those big consumers who purchase their supplies on yearly contracts are hanging off, and do not seem to be in a hurry to renew their contracts at the present time. Their contracts begin to lapse usually in October and continue to expire until the end of the year. A number of the big houses usually have their year's supply contracted for before this time.

The local trade does not look for any great reduction in price, and consequently does not believe that the purchasing agents who are holding back will gain much, if anything, by the delay. While the manufacturers agreed early in the summer to maintain the present accepted prices for manufactured goods until the market on crude rubber had become more certain and regular, some price cutting of "independent" manufacturers is reported. The fact that the manufacturers are maintaining their prices and that business is holding off as a result indicates a healthy condition in the trade any way, and they believe that this accepted and generally understood attitude will give a much better result in the end than if they cut prices and attempt to make immediate contracts for next year's delivery.

* * *

JOBBERS of rubber sundries state that holiday buying is interesting their trade, and they do not expect to do much until the reorders begin to come in after the first of the year. The retail merchants are pretty well stocked at the present, according to salesmen's reports fresh from the field.

* * *

THE rubber business here has been affected like all other trades by the demoralizing influence of politics, but as soon as the November elections clear the air of speculative talk, and the bumper crops begin to move, the trade feels assured that business will be better than it has been for several years. One Chicago manufacturers says: "Business men have grown to be very sensitive about trade reports, not to mention conditions, and the slightest rumor causes them to be hesitant and carefully conservative and draw in whatever business extensions they have in hand."

* * *

GENERALLY speaking, the distributors of tires are having the best business in rubber lines in Chicago at the present time. They do not seem to have any trouble in taking orders for all the goods they can furnish.

* * *

THE Vail Rubber Works, one of Chicago's new factories which was started last January to manufacture all kinds of molded rubber goods and mechanical supplies, has reorganized under the new name of the Vail Rubber Co. This company is a close corporation with $16,000 capital, all paid. The factory is at No. 301 West Indiana street. William A. Vail is president; William H. McCoy, Sr., vice president; and William H. McCoy, Jr., secretary and treasurer.

* * *

H. B. HARMER, well known to tire people, has succeeded Fred Cropley in the management of the Chicago branch of the G & J Tire Co. Mr. Cropley will devote his time to the automobile sales business.

THE New Jersey Car Spring & Rubber Co. report a very satisfactory volume of business since opening an office in Chicago on May 1. They have had unusual success in marketing their "Arcadia" brand of belts, and the sale of fire hose is exceedingly good.

* * *

THE Illinois Tire Co. is a new incorporation of the month, dealing in automobiles supplies. The company has a capital stock of $2,400. Incorporators: M. L. Burkhardt, F. L. Jackson and L. E. Gates.

* * *

MR. CHARLES A. HUNTER, president of the Peerless Rubber Manufacturing Co., spent a few days in the Chicago office during the early portion of the month. Mr. William Hillman stopped off for a few days in Chicago on his way East, returning from a short visit to the Denver office of the company. The Denver office was started less than a year ago and is doing a very handsome business.

* * *

THE Republic Rubber Co. are rushing the construction of their new five story steel building which will be devoted exclusively to the manufacture of Republic "Staggard tread" tires. The building is expected to be one of the largest and best equipped in the rubber industry.

* * *

THE Chicago office of the Hamilton Rubber Manufacturing Co. has removed from its old location at No. 161 Lake street, which it occupied for over ten years, to larger quarters at No. 171 Randolph street. Elmer E. Bast, manager, states that the new office will give them 6,400 square feet of floor space, which is nearly twice as much as they had on Lake street. This has been the biggest year the Chicago office has ever had, and Mr. Bast believes next year's business will be even greater.

* * *

A CHICAGO manufacturer has brought out a patented leather hose which he intends to start manufacturing in a few weeks. The hose is made of chrome leather, which is impervious to water and reasonably pliable. Chrome leather is put through a mineral process instead of the usual bark tannage. It will be made primarily for use on railway air brakes, but is said to be convertible to almost every use to which rubber hose is put. This new leather hose recalls the time when the Chicago fire department used leather hose exclusively 25 years ago.

INTERCONTINENTAL RUBBER CO.

AT the annual meeting of the Intercontinental Rubber Co. (Jersey City, New Jersey, October 3) the number of directors was increased from nine to eleven. The old directors reëlected are Edward B. Aldrich, Nelson W. Aldrich, Herman B. Baruch, Henry A. Bingham, Daniel Guggenheim, S. B. Guggenheim, Paul Morton, Allan A. Ryan, and William Sproule. The new directors are Charles H. Sabin, vice president of the Guaranty Trust Co., and Walter Dutton, secretary of the company. Edward B. Aldrich has been reëlected vice president and treasurer, and Walter Dutton reëlected secretary and assistant treasurer. Willard T. Smith has been elected assistant secretary. The office of president remains vacant.

The financial statement submitted showed that on January 1 last there was an accumulation of unpaid preferred stock dividends amounting to $765,441.03, or about 18¼ per cent. These have been paid, and in addition quarterly dividends at the rate of 7 per cent. per year have since been paid on the preferred stock. A first dividend of 1 per cent has been declared on the common stock, payable on November 1. During the year the outstanding preferred shares of the company have been reduced to $2,000,000, thereby reducing the dividend charge ahead of the common stock to $140,000 per year.

The statement concludes: "The fiscal year closed on July 31, 1910, has been a very profitable one for the company, notwithstanding the fact that we were unable to get the full benefit of the rise in rubber prices during the year on account of some rubber contracts already in force. The contracts already entered into for the sale of our product during the present fiscal year cover approximately three-quarters of the expected output, and the prices average higher than the company has received during the last fiscal year."

BALANCE SHEET—JULY 31, 1910.

ASSETS.

Investments		$30,040,464.13
Accounts and Notes Receivable.:		
Advances to subsidiary companies	$2,473,912.10	
Sundry	146,492.91	2,620,405.01
Cash		1,131,517.80
		$33,792,386.94

LIABILITIES.

Capital Stock:		
Common	$29,031,000.00	
Preferred	3,150,000.00	
Total capital stock outstanding		32,181,000.00
Accounts payable, taxes accrued, etc.		31,020.71
General reserve account		1,050,000.00
Surplus		530,366.23
		$33,792,386.94

SURPLUS ACCOUNT.

Surplus August 1, 1909		$248,943.99
Gross Profits for year	$2,369,794.72	
Less:		
Administration and General Expenses	101,610.95	
Net profit for year		2,268,183.77
Total		2,517,127.76
Charges against Surplus:		
Preliminary expenses charged off..	$24,320.50	
Amount transferred to general reserve account, equal to the preferred stock retired during the year	1,050,000.00	
Dividends paid	912,441.03	1,986,761.53
Surplus, July 31, 1910		$530,366.23

RUBBER PRODUCTION OF BOLIVIA.

THE rubber exports of Bolivia have again nearly reached the proportions credited to that republic before the alienation of the Acre territory, at the end of 1902. The latest statistics of exports, relating to the calendar year 1909, are analyzed in the table herewith, both by customs ports and the outlets to the world's markets:

	Pounds.
Via the Madeira:	
Villa Bella	3,681,891
Itinéz San Matias	42,611
Via the Pacific:	
Oruro	110,642
Guaqui	57,988
Puerto Perez	565,704
Bahia Cobija	1,558,311
Pelechuco	173,320
Through Argentina:	
Puerto Suarez	438,097
Tarija	86,836
Total	6,715,400

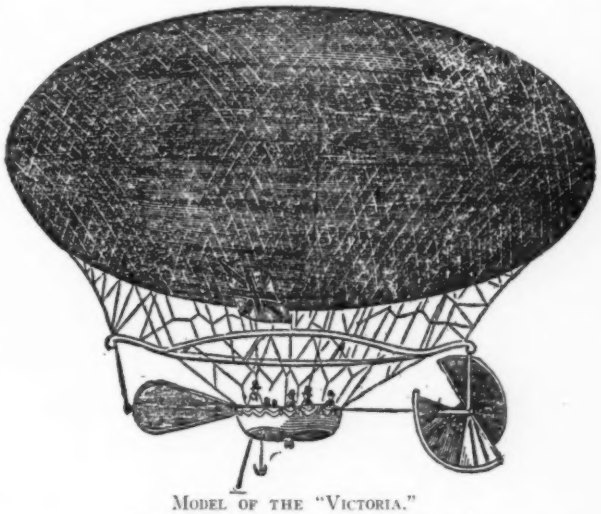
The exports for twelve years past have been as follows (in pounds). Up to, and including, 1902, the Acre production was credited to Bolivia. Since that date the Acre territory has belonged to Brazil:

1898	6,943,100	1902	4,186,585	1906	4,245,138
1899	4,708,000	1903	2,906,274	1907	4,027,129
1900	7,691,728	1904	3,456,481	1908	4,000,011
1901	7,623,138	1905	3,720,908	1909	6,715,400

AN EARLY BALLOON HOAX.

THE most recent achievements in aviation have not excited more popular interest than did a publication in the New York *Sun* of April 13, 1844, announcing the arrival of a balloon from Europe, carrying 8 passengers, after a voyage of only three days. In those days, antedating the telegraph, the papers were less crowded with news than in these times, and an opportunity offered now and then for perpetrating a "hoax" upon their readers, which was duly appreciated on all hands when the whole thing was exposed. The circumstantial account of the safe trip of Mr. Mason's "flying machine" the *Victoria* filled a good sized newspaper page, written in most convincing style, and accompanied by what purported to be a picture of the balloon when in flight. The picture printed by the *Sun* in 1844 is reproduced on this page.

There are several things about the *Victoria* report to recall scriptural assertion that "there is nothing new under the sun." As will appear from the picture, the imaginary flying machine consisted of an inflated bag, from which was suspended a car for passengers, the whole being provided with propeller and steering gear. Among the details of construction given it is



MODEL OF THE "VICTORIA."
[From the New York *Sun*, April 13, 1844.]

mentioned that "The balloon is composed of silk, varnished with the liquid gum caoutchouc."

The author of the *Sun's* "balloon hoax" was Edgar Allan Poe, the noted poet and writer of tales. At the date of the appearance of the hoax, as is now known, Poe had not achieved fame, and was greatly pressed for money. Doubtless he won enough for his story to tide him over a serious difficulty. The renown of Poe has become enhanced with the progress of time, and within the past month his name has been accepted for inclusion in the "Hall of Fame for Great Americans," organized in connection with the New York University.

Speaking of the Hall of Fame, the name of Charles Goodyear has been mentioned for this honor for some years past. [See THE INDIA RUBBER WORLD, December 1, 1900, page 75.] In the balloting by the electors on October 21, seven votes were cast for Goodyear, 51 votes being requisite for admission to a niche.

THE Paris branch of the B. F. Goodrich Co. mentioned in the last INDIA RUBBER WORLD (page 443) has been organized as the Société Francaise B. F. Goodrich, with a capital of 2,500,000 francs [= $482,500]. The domicile is at Avenue de la Grande Armeé 38 bis.

New Rubber Goods in the Market.

"WEAREVER" MOLDED WATER BOTTLE.

THIS bottle is made in a mold, under very high pressure, into one solid piece, from the very finest quality maroon rubber—is absolutely free from seams and has no weak points to give way while in use. The surface being perfectly smooth makes it absolutely sanitary. Another feature of this

"WEAREVER" MOLDED WATER BOTTLE.

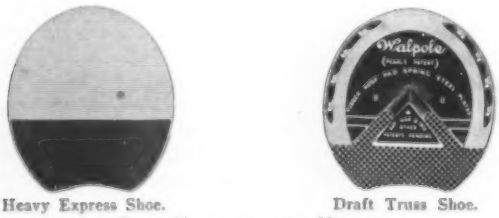
bottle is the large, roomy funnel or mouth, permitting the same to be firmly grasped and easily filled. This bottle is a most serviceable and practical one for hospital use. [The Faultless Rubber Co., Ashland, Ohio.]

RUBBERIZED LEATHER FOOTBALL COVERS.

It is stated that new lines which are arousing considerable interest in the British trade are the rubberized foot balls covered with a substance coated on the outside with rubber, whereby perfect waterproofing is secured. The rubberized balls are receiving a trial this season and their wearing qualities are being put to an exhaustive test.

WALPOLE RUBBER HEELS FOR HORSES

AN important rubber firm who for years have specialized on rubber heels for human beings, are now in the field with rubber heels for horses. They are manufacturing Pearl's patent reinforced heel. They are made of rubber, covered with tempered reinforced spring heel, making them exceedingly resilient. The



Heavy Express Shoe. Draft Truss Shoe.

SHOE HEELS FOR THE HORSES.

steel spring plate furnishes a large bearing surface for the frog. This heel also protects the heel from wear, and maintains an even pressure. Further than this, it allows the joint of the foot to flex naturally. They are made in eleven styles, from heavy express to racing. The illustrations show (1) the reverse side of the heavy express truss shoe, the blackened section representing the spring steel plate, and (2) the heavy draft shoe truss, showing face of the shoe. [Walpole Rubber Works, Walpole, Massachusetts.]

WOMAN'S WHITE RUBBER COAT.

THE distinct departure from conventional colors in rubber surfaced clothing has been accomplished in the production of a pure white rubber coat for ladies and misses. The rubber is the thinnest possible coating, as light in weight as if gossamer spread, and of a high grade compound. To relieve the almost startling whiteness of the garment, broad cuffs and standing collar of black satin are attached. The coat is thoroughly modern as far as cut goes, is double breasted, and has large patch pockets over which hang protective flaps. It has ventilated armholes and is fastened down the front with a dozen large pearl buttons, pockets and cuffs being ornamented with the same kind of buttons. [Fox, Stiefel & Co., New York.]

THE "FLASH" SKIRT MARKER.

THE device illustrated here is meant to mark any skirt, of any fabric, color, or size, instantaneously and with unerring precision. The cut shows a customer standing on the marker, with

THE "FLASH" SKIRT MARKER.

marking arms adjusted to the proper height. All that the fitter has to do is press the bulbs. [Julius L. Gutman, No. 467 Broadway, New York.]

AEROPLANE CLINCHER TIRES.

THE pneumatic tired wheels upon which the body of an areoplane rests while on the ground are an important factor. Upon them depends the ease of start and finish so necessary to both the occupants and to the machine itself. The number of wheels used varies from one on the monoplane tail, to two, three and four, depending upon the type of machine. They must be as light as possible and are usually of wire construction. The tires are of the best material, of generous size and easily adjustable. The clincher type has been found to be the most advisable so far. This table gives the size and corresponding weight usually furnished:

Size.	Weight complete.	Size.	Weight complete.
20x4 inches.	6¼ pounds.	28x3 inches.	8 pounds.
26x2½ inches.	6½ pounds.	28x3½ inches.	8¾ pounds.
28x2½ inches.	7½ pounds.		

AEROPLANE CLINCHER TIRE.

The illustration shows an aeroplane wheel and tire manufactured by the Pennsylvania Rubber Co. (Jeannette, Pennsylvania). Aeroplane tires, in spite of the fact that they work only when the machine is starting and alighting, undergo some service. The rush of the start, and the ofttimes hard shock of landing, call for strength and toughness. A weak tire might burst and cripple the machine. In their cloud journeys they are idle and do not pick up nails, nor is the aerial skidding ever laid to them. Two styles are in vogue, those with a leather tread, and the ordinary rubber surfaced tire. So far no aeronaut has complained of heating; indeed, after a flight the surface of the tire is often as cold as ice.

THE O'KANUS FACE WATER BOTTLE.

THE O'Kanus brand of water bottles and like goods are made up in various colors, to suit the tastes of buyers—white, slate, white-slate trim, and slate-white trim. All the goods of this brand are packed in flat telescope boxes, with a new form of hinged platform for fittings. An interesting item in this line of goods is the O'Kanus face water bottle, made in the same way as the larger bottles in this line. The shape of the face water bottles is admirably adapted for the purpose for which they are intended. They are made in three sizes—one-fourth pint, one-half pint, and one pint. By the way, these bottles are recommended also for infants. [The Miller Rubber Co., Akron, Ohio.]

O'KANUS FACE WATER BOTTLE.

RUBBER GOODS IN AVIATION.

IN connection with the aviation meet at Belmont Park, near New York (October 22-30), were exhibited a great variety of aeroplane engines, propellers, and appurtenances. Of special interest to rubber men were the exhibits in their own line.

For example, the Goodyear Tire & Rubber Co. (Akron, Ohio) exhibited a full line of tires for aeroplanes, together with aeroplane and balloon fabrics.

The Hartford Rubber Works Co. showed three types of single tube aeroplane tires, called "the Hartford Aviator," "Aeroplane," and "Aeronaut," respectively. They had on exhibition also Hartford clincher airship tires in regulation sizes. The Hartford Aero varnish was another specialty that was evident in their exhibit.

The new Century Rubber Trading Co. showed a full line of automobile tires which were explained by Mr. Nathan Baruch.

An interesting exhibit was that of aviator cord and aviator wire, made by John A. Roebling's Sons Co. (Trenton, New Jersey).

THE BALDWIN AEROPLANE FABRIC.

FOR aeroplanes and balloons a silk double walled, vulcanized fabric, claimed to have ten times the wear of varnished stuffs used, has been accepted by the United States government for balloons, dirigible and spherical. This material, it has been proved, requires little care, is not subject to spontaneous combustion, will not crack and is of course waterproof. Its breaking strain is 100 pounds per inch width. [Thomas S. Baldwin, Madison Square, New York.]

AVIATION SUITS.

THE man who runs an aeroplane oftentimes gets very wet and cold, unless properly clothed. To be anywhere near comfortable he must be encased from top to toe in waterproof and cold-proof clothing. Such clothing must, moreover, be light, flexible, and not bulky. Suits of very light waterproof leather are often worn. What interests the rubber trade more, however, are the

THE "J. M." AVIATOR SUIT.

double textured suits made of special tweeds, extra light in weight, and absolutely wind and weather proof. The illustration shows one of these suits which is known as the "J. M." aviator suit and exhibits its construction so well that no explanation is necessary. [J. Mandleberg & Co., Limited, Manchester, England.]

FRENCH AVIATION CLOTHING COMPETITION.

THE Ligue Nationale Aérienne have organized several competitions with the object of rendering aviation safer and pleasanter. One of these competitions is for protective clothing from wind, cold, and water, for the aviator.

CRAVENETTE POPLIN.

POPLIN, a popular fabric for ladies' and children's gowns, is made of cotton but is very silky in appearance. "Cravanette Poplin" is the same material, but is water repellent, stainproof,

will not crock, and can be sponged, washed and pressed, as neither water nor heat can harm its luster or durability. [Neuss, Hesslein & Co., No. 43 White street, New York.]

NOVELTIES IN RUBBER FOOTWEAR.

THE rubber footwear catalogues for 1911 will show a new line of men's rubbers made on the "Military" last, which is designed to be worn with the "Military" leather shoes now considerably affected in different parts of the country, especially in the West. This new Military line in rubbers has a thick toe and a high heel. It will appear in practically all the catalogues issued by the United States Rubber Co.

Most of the new catalogues will show, in addition to the "Military" last, a medium high heel, which the American company calls the "Suffolk," the Banigan company calls the "Hudson," the Candee company calls the "Autocrat," and the Woonsocket company calls the "Fulton."

A number of the new rubber catalogues will show a variety of new women's lasts to cover the various degrees of high heel which are now made in leather shoes for women. For instance, the Woonsocket catalogues will show a Cuban heel last, which is what might be called the first stage of the high heel—that is, high heel in its lowest form. The next gradation is covered by the "Ashley" last, which has a heel of medium height. The extreme high heel leather shoe has its counterpart in rubbers in the Woonsocket "Vesta," which has a short vamp and a heel nearly two inches high. These three lasts are made both in croquets and in storm rubbers.

The introduction of these new high heel rubbers in various forms shows how closely rubber manufacturers follow the new styles in leather footwear, even when these styles go to extremes which naturally have only a temporary vogue.

A new 4-buckle gaiter will appear in most of the catalogues for the coming year for the first time. It is called the "Walrus," and is a 4-buckle snow excluder made entirely of rubber. This is made with an ordinary sole, and is also made with what is known as a "Railroad Sole"—that is, a full double sole. An illustration of this "Railroad Walrus" will appear in the Boston catalogue.

AN IMPROVEMENT ON THE RUBBER FORCE CUP.

THE "Little Giant" household pump, the salient points of which are a patent lift and force cup, is said to be exceedingly effective in the removal of obstructions in waste pipes. [J. E. Kennedy, New York.]

THE CEYLON RUBBER MARKET.

AN important feature in the rubber trade of the Far East will be the installation on November 4, of weekly auction sales at the Chamber of Commerce sale rooms, in Colombo. The effect of the fortnightly auctions in London and Liverpool for a number of years past has been to fix prices of crude rubber, not only in those markets but elsewhere, to an extent which could be arrived at probably by no other means so satisfactorily.

When actual rubber is offered at a London auction, if sold, it brings a price which marks its real value to consumers, and while prices may change before the next auction, the result attained at any given sale forms a basis for any transaction which may take place privately up to the date of the next sale. The advantages of this method of arriving at rubber prices have been appreciated by the interests back of the newer rubber market at Antwerp—where all the rubber arriving is first offered at auction—and still later at Havre, Bordeaux, and Amsterdam. Colombo is becoming a central market for plantation rubber in the Far East, its shipping facilities giving that port an important advantage, in addition to the fact that so much rubber is now being produced on the island of Ceylon.

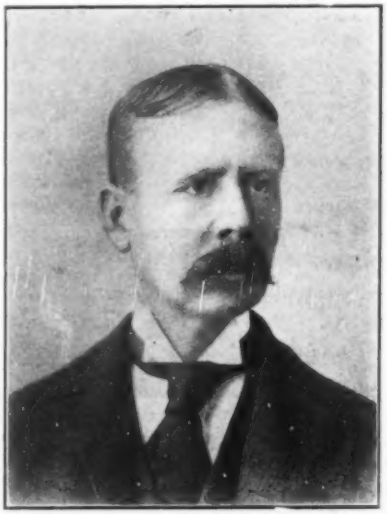
One stimulant to the organization of rubber sales at Colombo has been the success of the weekly tea sales which have been conducted in the Chamber of Commerce rooms there for the past 25 years.

OBITUARY.

BENJAMIN F. JACQUITH, died at Swan's Island, Maine, on September 29, in his eighty-ninth year. Born at Andover, Massachusetts, on February 14, 1822, he went at an early age to Boston, where he found employment in the shoe jobbing house of T. C. Wales, who was one of the first, if not the first, to import into the United States the crude rubber shoes made by the natives of the Amazon region. In time Mr. Jacquith engaged in the footwear trade on his own account, but always making a specialty of rubber boots and shoes. In 1892, by which time he had established important houses in Boston, New York, Chicago, and Des Moines, he turned over the business to his sons, retire from active control of affairs. He had a widespread acquaintance with the trade, and his friends were legion. He was apparently in good health when he went away for a vacation in the past summer, and his final illness was of short duration. Funeral services were conducted at his late residence, No. 1 Exeter street, Boston, by the Rev. George A. Gordon, of the Old South Church (of which he was a member), and the interment was in the family lot at Andover. Mrs. Jacquith died some five years earlier.

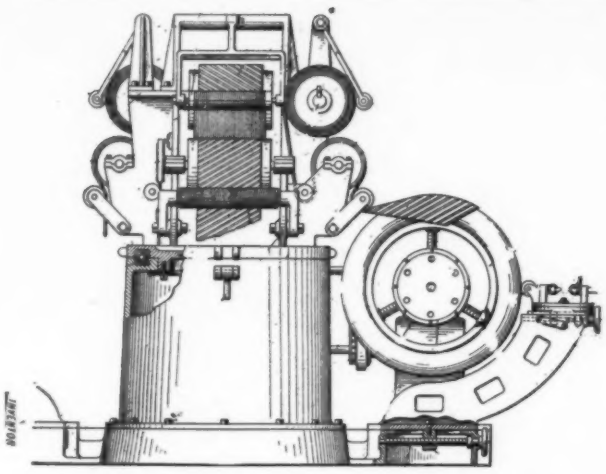
FRANK N. WHITE.

THE news comes from London just as THE INDIA RUBBER WORLD goes to press, of the death in that city on September 26 of Frank N. White. He was long identified with the rubber trade in the United States, after having first been interested in the bicycle business. He was in charge of the New York Tire Co. for several years, their tires being made by the Revere Rubber Co., and when the Tire company was taken over by the Revere, as their tire department, Mr. White continued as their manager.



FRANK NEWTON WHITE.

Later he promoted the Atlantic Rubber Shoe Co. During late years he spent most of his time in England, where he was instrumental in placing tire and tube making machinery invented by Henry J. Doughty, with such companies as the Dunlop Pneumatic Tyre Co. Mr. White was a natural promoter, optimistic, of good address, with a firm belief in any project that he was backing, and with a natural faculty for presenting its claims. He was New Hampshire born, and about 60 years of age at the time of his death.



PNEUMATIC TIRE SHOE MANUFACTURING MACHINE.
[Patented by W. C. State, assignor to F. A. Seiberling.]

TIRE-MAKING BY MACHINERY.

A GREAT many different machines have been designed to manufacture automobile tires or to assist in their manufacture. Perhaps the most ambitious attempt is that of the Goodyear Tire and Rubber Co. (Akron, Ohio), who have installed a battery of machines in their making up department. Each machine is mounted on heavy castings, and is designed for two workmen. It is circular in form, the tire core being held by two chucks in front of the worker. Above are racks with revolving holders for the frictioned duck, two for each tire builder.

The fabric cut, as usual, on the bias, is rolled on the holder with a sheet of muslin intervening to prevent sticking. It is arranged so that in the different plies the direction of the threads alternate, giving strength. In use the frictioned stock is led down upon the core which has been covered with cement, the muslin automatically being taken up by another roll. The fabric running under an idler to give it tension is rolled slowly about the core, the speed being about 6 revolutions a minute.

When one revolution is finished the fabric is cut, then a high speed clutch is thrown in and the core revolved about 270 revolutions a minute. Two spinning rolls, spring pressed, disc shaped, and rounded on the edges, are then brought to bear on the tread and gradually work down on the sides until the fabric is rolled tightly against the form. Trimming is done by cutter rolls. The machine is adjustable for different sized tires, and both straight or clincher tires can be made upon it. One man by using this machine can finish ten times more tires, in a day than he could by hand work.

MAKING TIRES BY MACHINERY.
[A View of the Goodyear Tire-Making Machine, Showing Operators on Each Side Stretching Fabric.]

AUTOMOBILE AND TIRE NOTES.

VANDERBILT CUP RACE.

THE sixth Vanderbilt Cup race—the most important automobiling event in America—occurred on the Long Island course near New York, on October 1, in the presence of more people than had witnessed this contest in any preceding year. More cars were entered, faster time was made, and there was better racing, in the opinion of experts, than in the preceding contests for this cup. The winner was Harry F. Grant, with R. Vernon, mechanician, in a 6-60 "Alco" car. The distance, 278.08 miles, was covered in 255 minutes 58 seconds, or an average of 65.18 miles an hour. Of the 29 entrants, 10 covered the course and four were running at the finish. Grant was the winner also in last year's race, when he drove an "Alco" car. He was born in Boston 33 years ago. For the fifth year in succession the winning car was equipped with Michelin tires. The grand prize contest for the $5,000 gold challenge cup of the Automobile Club of America, scheduled for the Vanderbit Cup course for October 15, was postponed, doubtless on account of the unfortunate and unusual number of accidents, which occurred on the day of the cup race. Arrangements have been made for this contest in another State.

Six years ago, when the first Vanderbilt Cup race was run, every entrant was a special racing car, designed and constructed specifically for racing purposes, and the cost of these special automobiles ranged all the way from $20,000 to $63,000 apiece. When the race was declared finished, there were but four of these special cars in the running, and of the four cars but one of American design and construction, and that was in a state of bad repair at the end of the race.

This year the cars run were not only of a stock type, but of American construction. The point is that the automobile has become standardized and that the makers profiting from several years' experience are putting into machines for the everyday purchaser the best that the world can produce in the present state of the industry.

The Automobile (New York) asserts. "Let there be no mistake; the sixth annual Vanderbilt race is the finishing touch to what has been a long drawn-out struggle between the classes of cars that are made on a stock basis and the character of automobile that is specially made."

In former years when Michelin tires won the honors in the Vanderbilt Cup races they were registered as of French make, but as the Michelins have an American factory now it is presumed that they did not import tires for this special occasion.

TIRE TRADE NOTES.

THE Pacific coast representatives of Ajax-Grieb Rubber Co., Messrs. Hughson & Merton, of Seattle, Washington, have moved into a new store, at Pike street and Tenth avenue, in the center of the automobile district of that thriving city.

Under the title *The Clincher*, The B. F. Goodrich Co. (Akron, Ohio) issue monthly a little magazine which is one of the most interesting trade publications devoted to tires.

The Buffalo Specialty Co. (Buffalo, New York), after having obtained a verdict against Gougar & Todd, of Denver, Colorado, in a suit alleging infringement of the patent granted to Charles E. Duryea for the tire puncture compound "Neverleak," have defeated a motion made by the Denver firm for a new trial.

News of the American Rubber Trade.

WATERPROOF GARMENT ASSOCIATION.

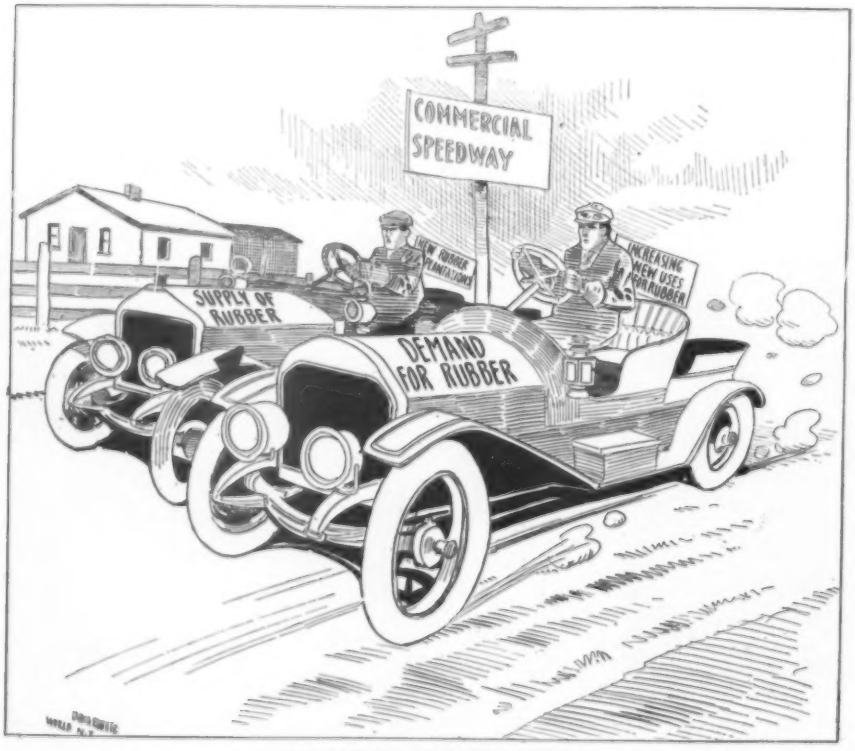
THE Waterproof Garment Manufacturers' Association has been organized to include only firms local to New York City, the purpose being the general promotion of trade interests and the abolition of abuses. The movement grew out of a strike among cloak and suit workers, but as it was considered that there was not enough in common between the waterproof garment manufacturers and the cloak and suit element, the latter were not admitted to the association. This is intended to be a permanent organization, and meetings are to be held monthly. The following firms compose the membership:

Acme Raincoat Co.	American Raincoat Co.
Auto Robe and Rubber Co.	Eastern Raincoat Co.
Empire Raincoat Co.	C. Kenyon Co.
Edward Krieger & Co.	Lazarus Raincoat Co.
Liberty Rubberizing Co.	National Raincoat Co.
New York Coat House.	New York Macintosh Co.
Phoenix Auto and Raincoat Co.	J. Mandelberg & Co., Ltd.
E. L. Rosenthal.	Rosenthal & Katz.
Sanborn Manufacturing Co.	United States Raincoat Co.

The officers are W. A. Walker, president; George Kenyon, treasurer; Charles A. Place, vice-president, and Charles S. Horovitz, secretary. The headquarters are at No. 42 West Eighteenth street, New York.

TIRE TRADE IN COLORADO.

THE Boss Rubber Co., No. 1614 Broadway, Denver, Colo., founded about the middle of 1908, by John G. Boss, a native of Akron, Ohio, where he acquired a thorough knowledge of the tire manufacture, has grown to very important dimensions. They are devoted exclusively to the tire trade, being distributors of the "Continental" tires and demountable rims for Colorado, Wyoming, and New Mexico, and handling a full line of tire accessories. They are referred to as operating the largest vulcanizing plant west of Akron, employing ten men constantly in their repair department. Mr. Boss is president of the company, and S. Z. Silversparre, secretary-treasurer.



THE RUBBER PRICE PROBLEM.

NEW INCORPORATIONS.

SOUTHLAND Rubber Co., September 7, 1910, under the laws of Washington; capital $50,000. Incorporators: J. W. Oakes, E. B. Bird, Harry S. Martin, George K. McDowell, James W. Booth, J. B. Rogers, and Charles E. Brown—all of Spokane, Washington. To cultivate 1,000 acres in rubber in the State of Chiapas, Mexico. Officers: George K. McDowell, M. D. president; J. W. Oakes, vice president; James W. Booth, treasurer; Charles E. Brown, secretary and manager; B. A. Johnson, assistant secretary. Office: 219 Paulsen building, Spokane, Washington.

Hardman Tire and Rubber Co., October 19, 1910, under the laws of New Jersey; authorized capital $100,000. Incorporators: James Hardman, J. Harry Hardman—both of Belleville, N. J.—and William A. Sweet, Newark, N. J.

Standard Rubber and Cable Co., September 7, 1910, under the laws of Connecticut; authorized capital $50,000. Incorporators: William J. Burns, William M. Doucette, and Peter A. Thorp—all of Bridgeport, Conn.

General Bakelite Co., September 29, 1910, under the laws of New York; capital $800,000. Incorporators: Leo H. Baekeland, Yonkers, N. Y.; Jacob Hasslacher and Hugo Du Bois—both of New York.

Century Tire Co., September 22, 1910, under the laws of New Jersey; authorized capital $125,000. Incorporators Richard P. Lydon, No. 35 Nassau street, New York; Arthur J. Albert, Hoboken, New Jersey; and John T. Dwane, No. 29 Moffatt street, Brooklyn, New York.

National Tire Machine Co., September 19, 1910, under the laws of New Jersey; authorized capital $100,000. Incorporators: John Sullivan, Matthew Bowen, and Dennis Hogan—all of No. 59 Montgomery street, Jersey City, N. J.

National Tire Fabric Co., September 19, 1910, under the laws of New Jersey; authorized capital $50,000. Incorporators: John Sullivan, Matthew Bowen, and Dennis Hogan—all of No. 59 Montgomery street, Jersey City, N. J.

Richardson Auto-Tire Protector Co., September 26, 1910, under the laws of New York; capital $100,000. Incorporators: Jason Richardson, Ora Richardson, and Valentine Hoefner—all of Buffalo, N. Y.

Connecticut Raincoat Co., September 6, 1910, under the laws of Connecticut; authorized capital $25,000. Incorporators: Solomon Leor, Jacob Prober, and Abraham Goldstein—all of New Haven, Conn.

Honduras Mahogany and Rubber Co., July 27, 1910, under the laws of New York; capital $50,000. Incorporators: Herbert H. B. Holland, The Ansonia Hotel; Edward D. Smith, No. 68 West Sixty-eighth

street; and Holmes S. Smith, No. 228 West One hundred and eighth street—all of New York.

Brazilian Timber, Rubber and Mineral Co., September 30, 1910, under the laws of Delaware; authorized capital $5,000,000. Incorporators: James M. Satterfield, Dover, Delaware; Porter Steele and Godfrey Goldmark—both of New York.

Superior Rubber and Manufacturing Co., June 23, 1910, under the laws of Ohio; capital $10,000. Incorporators: J. M. Hyatt, E. S. Besaw, R. E. Nicol, A. B. McAllister, and W. J. Hollenstein. Location: Akron, Ohio.

Portage Rubber Co., February 17, 1910, under the laws of Ohio; authorized capital $10,000. Incorporators: G. H. Doolittle, F. D. Cassidy, M. E. Habicht, F. E. Miller, and J. W. Snyder. Other details regarding this company have appeared in THE INDIA RUBBER WORLD at various times.

The Amazonia Rubber Exchange, Inc., August 31, 1910, by the State Corporation Commission of Virginia; maximum capital, $100,000. To deal in lands in South America and to cultivate or produce rubber and other commodities. President, J. Orton Kerbey, late United States consul at Pará; Vice President and Treasurer, A. Franklin Campbell, Ontario, Canada; Secretary, John A. Emslie, with Chesapeake and Ohio Coal and Coke Co. Executive offices: 407 Munsey building, Washington, D. C.

UNITED STATES RUBBER CO.'S ISSUES.

TRANSACTIONS on the New York Stock Exchange for four weeks, ending October 22:

COMMON STOCK, $25,000,000.

[The treasury of a subsidiary company holds $1,344,000.]

Last Dividend, April 30, 1900—1%.

Week	October	1	Sales 4,100 shares	High	36⅝	Low	34
Week	October	8	Sales 2,526 shares	High	37	Low	35⅞
Week	October	15	Sales 8,700 shares	High	38⅜	Low	36¼
Week	October	22	Sales 4,600 shares	High	38¾	Low	37⅞

For the year—High, 52½, Jan. 3; Low, 27, July 26.
Last year—High, 57¾; Low, 27.

FIRST PREFERRED STOCK, $39,824,400.

Last Dividend, October 31, 1910—2%.

Week	October	1	Sales 545 shares	High	109	Low	107¾
Week	October	8	Sales 1,200 shares	High	109¾	Low	109
Week	October	15	Sales 1,200 shares	High	112½	Low	109⅞
Week	October	22	Sales 600 shares	High	112⅛	Low	111

For the year—High, 116½, Jan. 10; Low, 99, July 26.
Last year—High, 123½; Low, 98.

SECOND PREFERRED STOCK, $9,965,000.

Last Dividend, October 31, 1910—1½%.

Week	October	1	Sales 200 shares	High	71	Low	70
Week	October	8	Sales 100 shares	High	71	Low	71
Week	October	15	Sales 800 shares	High	75	Low	74
Week	October	22	Sales 430 shares	High	75½	Low	75

For the year—High, 84, Jan. 3; Low, 55½, July 27.
Last year—High, 89½; Low, 67½.

SIX PER CENT. TRUST GOLD BONDS, $19,500,000.

Week	October	1	Sales 66 bonds	High	103⅛	Low	102¾
Week	October	8	Sales 37 bonds	High	103	Low	102¾
Week	October	15	Sales 66 bonds	High	103	Low	102¾
Week	October	22	Sales 79 bonds	High	103	Low	102½

For the year—High, 104½, Jan. 15; Low, 101¼, July 30.
Last year—High, 106; Low, 102¼.

AMERICAN CONGO CO. ELECTION.

THE annual meeting of shareholders of the American Congo Co., for the election of directors and for other purposes, called to be held on October 19, at the offices of the company, No. 111 Broadway, New York, was adjourned to Wednesday, November 9. No business of any kind was transacted on October 19.

ESSEX RUBBER CO.'S REPRESENTATIVES.

ESSEX Rubber Co. have removed their New York offices to nicely appointed quarters in the new Rogers Peet building, Room 711, No. 258 Broadway. This office is in charge of Mr. S. Y. L'Hommedieu, New York sales agent of the company. The New Enlgand business of the company is handled through their Boston office at No. 58 Lincoln street, in charge of Mr. W. F. Bainbridge, their New England representative, who, in conjunction with Farnsworth, Hoyt & Co., has so ably cared for the Essex Rubber Co.'s interests during the past three years.

THE GENERAL BAKELITE CO.

THIS company, the incorporation of which is noted in another column, has been formed to work the Bakelite patents of Dr. L. H. Baekeland, of Yonkers, New York. Dr. Baekeland is president of the new company; Jacob Hasslacher vice-president and treasurer, and Hugo Dubois secretary. The other directors are Dr. Hans Foersterling, S. T. Peters and R. H. Williams. Herbert S. May is manager of the company. Works are being equipped in Perth Amboy, New Jersey, for supplying to the trade raw Bakelite in its different forms. Thus far Bakelite has been used mainly for electrical purposes, but from now on other applications will be taken in hand. Molded Bakelite articles are now being manufactured in the United States by—

Boonton Rubber Co., Boonton, New Jersey.
Dickinson Manufacturing Co., Springfield, Massachusetts.
Protal Co., No. 442 Myrtle avenue, Bridgeport, Connecticut.
Owasa Co., Elizabeth, New Jersey.

Dr. Baekeland sold his Bakelite patents for Europe to the Bakelite Gesellschaft m. b. H., of Berlin. The Resinit interests, who, in Germany, have lately brought out a product which has some analogy with Bakelite, have purchased an interest in the Bakelite Gesellschaft, and have transferred all their patents to the Bakelite Gesellschaft and will discontinue the manufacture of their own product, which will be taken up by the Bakelite Gesellschaft. The interests connected with the Bakelite Gesellschaft in Europe control, practically, the market of phenols, while the interests connected with the General Bakelite Co. are the largest producers of formaldehyde. In this way very close connection exists between the suppliers of the raw material and the Bakelite enterprises.

HARDMAN TIRE AND RUBBER CO.

THIS company, the incorporation of which is reported in another column, has been formed to acquire the real estate and machinery used in the business carried on formerly by The Riverside Rubber Co. and James Hardman, at Belleville, New Jersey, and to manufacture automobile tires. Later it is intended to add the manufacture of hard rubber goods and druggists' sundries. The officers of the company are F. Monroe Dyer, president; James Hardman, vice-president; J. Harry Hardman, secretary, and William A. Sweet, treasurer.

TRADE NEWS NOTES.

THE Eureka Fire Hose Manufacturing Co. (New York) are adding to their already extensive plant at Jersey City, New Jersey, a two-story brick concrete stable, 50x65 feet, which is intended to be turned later into a garage for trucks. They are erecting also a two-story carpenter shop, 75x100 feet, both being built of brick.

Mr. H. B. Harmer, lately with The Diamond Rubber Co., has been appointed manager of the Chicago branch of The G & J Tire Co., succeeding Mr. F. F. Tropley, resigned.

Mr. Charles Muehlstein, of The Loewenthal Co., the recently reorganized large scrap rubber business, sailed for London, early in the month, to open a branch to take care of their large European trade.

Mr. M. P. Fillingham, consulting and contracting engineer to the rubber trade (No. 50 Church street, New York), has made connections with the Birmingham Iron Foundry, manufacturers of rubber mill machinery, to represent them in New York territory, in addition to his regular business.

Canada, though importing automobiles, is also exporting some of her own manufacture. During the fiscal year 346 were exported, of the average value of $1,171, of which 167 went to Australia.

NEW HARDWARE DISTRIBUTING SYSTEM.

THE manufacturers of rubber goods whose products are distributed so widely through the hardware trade cannot fail to be interested in the coöperative buying project which is being organized under the name of American Hardware and Supply Co. The purpose is to distribute goods to retail hardware merchants, in various States, who affiliate themselves with the company as shareholders. Its operations will be on similar lines to those followed by the Philadelphia Hardware Merchants' Association, which has a membership of 33 houses, but on a much larger scale.

The new movement is under the leadership of Mr. M. R. Porter, who has had an extensive experience in the wholesale hardware trade, and the present headquarters are in the Oliver building, in Pittsburg, in which city the first distributing warehouse will be organized. It is expected that the company will be in active operation by January 1, 1911.

The new movement has received support from leading hardware journals, in view of what are regarded as growing difficulties in the retail hardware trade. As a prominent retailer writes: "There must be a revolution in the system of distributing goods." *Iron Age-Hardware* remarks: "Perhaps the jobbers will find some solution consistent with their continuance as the channel for the supply of the retail trade, even though this may require a modification of their methods and a material reducing of the expenses under which they are now conducting business."

STEAM PACKINGS AT THE TRENTON FAIR.

THE Home Rubber Co. were exhibitors at the recent Interstate Fair at Trenton, New Jersey, making a specialty of their "N B O" and "O I M" packings, which attracted much favorable comment. The printed matter with these goods was distinctly original and attractive. One folder was embellished with a view of Vesuvius in eruption, with the suggestion that "If Mt. Vesuvius had been packed with N B O it would never have blown out."

RUBBER MEN PLAY BALL.

Two interesting games of baseball were played during the past month by two teams from different departments of the general offices of the United States Rubber Co. in Prospect Park, Brooklyn—from the Auditor's and Selling departments. In the game on October 1 the Auditors won by a score of 18 to 10. In the game on October 8 the Selling department won by a score of 8 to 1.

PERSONAL MENTION.

AN interesting incident in the proceedings of Altair Lodge, F. and A. M., Brooklyn, N. Y., on the evening of October 18, was the affiliation of Mr. Robert B. Baird, of the Rubber Trading Co. (New York), and the working of the third degree upon Mr. Robert L. Baird, his son.

The Editor of THE INDIA RUBBER WORLD is to give an illustrated lecture on the rubber country of the Amazon at a meeting of the American Chemical Society to be held at the Chemists' Club, No. 108 West Fifty-fifth street, New York, on the evening of November 11.

Lieutenant Francis H. Appleton (of F. H. Appleton & Son, Boston) is one of a committee of three who have gone to London in behalf of the Ancient and Honorable Artillery Company of Boston, to present to King George V a certificate of honorary membership in their organization.

Mr. Quincy Tucker, whose interest in rubber THE INDIA RUBBER WORLD has chronicled from time to time, is at present in British Guiana. He writes THE INDIA RUBBER WORLD that he has acquired for himself and others rubber properties in Demerara and Trinidad.

Mr. William J. Kelley, Jr., son of "the only Kelley," of the firm of Poel & Arnold, New York, has returned to Germany for his second year in the University of Leipzig, where he is specializing on the ctemistry of india-rubber.

Mr. Edward E. Huber of the firm of Eberhard Faber, at the recent fifteenth annual meeting of the New York Credit Men's Association, was reëlected secretary of that organization. Mr. Huber has also filled, for a number of years, the office of secretary of the Rubber Sundries Manufacturers' Association.

Recent visitors to New York were Herr Seligman, a son of Director Siegmund Seligman, of Continental-Caoutchouc- und Guttapercha Cie., of Hanover, Germany, and Dr. Albert Gerlach, a director in the same company.

The Century Rubber Trading Co., incorporated March 9, 1910, are operating the factory at Plainfield, New Jersey, used formerly by the Courtney Rubber Co. They are making the "Century" tire for automobiles. Their New York office is at No. 123 West Sixty-eighth street.

Mr. Ernest E. Buckleton, secretary and general manager of the Northwestern Rubber Co., Limited, of Litherland, Liverpool, delighted his American friends with a visit during the past month.

CRUDE RUBBER STATISTICS.

Plantation Rubber from the Far East.

EXPORTS OF CEYLON GROWN RUBBER.

[From January 1 to September 19, 1909 and 1910. Compiled by the Ceylon Chamber of Commerce.]

	1909.	1910.
To Great Britain ..... *pounds*	494,394	968,439
To United States	276,400	932,516
To Canada		1,911
To Belgium	27,036	34,217
To Germany	17,839	10,479
To Australia	8,224	1,099
To Italy	608	841
To France	1,639	....
To China	1,508	....
Total	827,648	1,949,502

[Same period 1908—530,618 pounds; same 1907—334,765.]

TOTAL EXPORTS FROM MALAYA.

[From January 1 to dates named. Reported by BARLOW & Co., Singapore. These figures include the production of the Federated Malay States, but not of Ceylon.]

	1908.	1909.	1910.
From Singapore (to Sept. 9).....	1,369,584	1,712,109	2,339,629
From Penang (to Aug. 20).....	802,583	1,619,205	1,315,426
From Pt. Swettenham (to Aug. 21)	....	....	5,008,521
Total	2,172,167	3,331,314	8,663,576

Antwerp.

RUBBER ARRIVALS FROM THE CONGO.

SEPTEMBER 23.—By the steamer *Albertville:*

Bunge & Co.	(Société Générale Africaine) *kilos*	113,800	
Do	(Chemins de fer Grands Lacs)	9,900	
Do	(Comptoir Commercial Congolias)	19,400	
Do	(Cie. du Kasai)	78,200	
Société Coloniale Anversoise	(Süd Cameroon)	7,700	
Société Equatoriale Congolaise		1,190	
Charles Dethier	(American Congo Co.)	2,250	
L. & W. Van de Velde		3,000	
Congo Trading Co.		200	235,640

OCTOBER 12.—By the steamer *Leopoldville:*

Bunge & Co.	(Société Générale Africaine) *kilos*	68,000	
Do	(Chemins de fer Grands Lacs)	7,300	
Do	(Comptoir Commercial Congolais)	19,700	
Société Equatoriale Congolaise		700	
Société Coloniale Anversoise	(Süd Cameroon)	10,000	
Do	(Cie. du Kasai)	85,600	
Cassart & Henrion		700	192,000

African Rubbers.

NEW YORK STOCKS (IN TONS).

September 1, 1909.....	123	April 1, 1910.....	121
October 1	67	May 1	125
November 1	134	June 1	90
December 1	134	July 1	120
January 1, 1910.....	228	August 1	250
February 1	134	September 1	300
March 1	161	October 1	375

Review of the Crude Rubber Market.

PRICES quoted for all grades of rubber listed on this page have declined materially since our last report, but it is to be noted that all quotations are referred to in the trade as nominal, and that anything like fixed conditions do not exist in the trade. It is asserted that there is no buying on a large scale, manufacturers being disposed, as far as possible, to remain out of the market. In the London market the decline in rubber is attributed to lack of buying orders in America, while on this side of the Atlantic the condition is charged to manipulation in England.

NEW YORK QUOTATIONS.

Following are the quotations at New York for Pará grades, one year ago, one month ago, and October 28—the current date:

PARA.	Nov. 1, '09.	Oct. 1, '10.	Oct. 28.
Islands, fine, new	185@187	155@156	121@122
Islands, fine, old	none here	none here	none here
Upriver, fine, new	203@204	165@166	140@141
Upriver, fine, old	none here	169@170	142@143
Islands, coarse, new	71@ 72	90@ 91	73@ 74
Islands, coarse, old	none here	none here	none here
Upriver, coarse, new	...@124	122@123	102@103
Upriver, coarse, old	none here	none here	none here
Cametá	84@...	90@ 91	75@ 76
Caucho (Peruvian), ball	115@...	119@120	100@101
Caucho (Peruvian), sheet	...@ 88	none here	none here
PLANTATION PARA.			
Fine smoked sheet	none here	159@160	141@142
Fine pale crepe	...@220	145@146	140@141
Fine sheets and biscuits	...@...	142@143	138@139
CENTRALS.			
Esmeralda, sausage	97@ 98	103@104	91@ 92
Guayaquil, strip	85@ 86	none here	none here
Nicaragua, scrap	95@ 96	100@101	90@ 91
Panama	84@ 85	none here	none here
Mexican, scrap	97@ 98	100@101	90@ 91
Mexican, slab	84@ 85	66@ 67	60@ 61
Mangabeira, sheet	82@ 83	80@ 81	75@ 76
Guayule	50@ 51	74@ 75	65@ 66
Balata, sheet	...@...	...@...	...@ 80
Balata, block	...@...	...@...	...@ 56
AFRICAN.			
Lopori, ball, prime	...@135	130@131	124@125
Lopori, strip, prime	none here	125@126	118@119
Aruwimi	121@122	122@123	110@111
Upper Congo, ball, red	129@130	120@121	110@111
Ikelemba	none here	none here	none here
Sierra Leone, 1st quality	122@123	145@146	119@120
Massai, red	...@124	145@146	119@120
Soudan niggers	...@109	115@116	108@109
Cameroon, ball	80@ 90	73@ 74	66@ 67
Benguela	81@ 82	98@ 99	88@ 89
Madagascar, pinky	...@102	none here	none here
Accra flake	23@...	none here	46@ 47
EAST INDIAN.			
Assam	none here	none here	none here
Pontianak	...@5¼	5½@5¾	5⅛@5¼
Borneo	52@ 53	none here	none here

Late Pará cables quote:

	Per Kilo.		Per Kilo.
Islands, fine	4$900	Upriver, fine	6$800
Islands, coarse	2$800	Upriver, coarse	4$800
		Exchange	17½d.

Latest Manáos advices:

Upriver, fine	6$800	Upriver, coarse	3$800
		Exchange	17-9/16d.

NEW YORK PRICES FOR SEPTEMBER (NEW RUBBER).

	1910.	1909.	1908.
Upriver, fine	$1.55@1.90	$1.90@2.15	$0.96@1.03
Upriver, coarse	1.22@1.42	1.12@1.32	.69@ .73
Islands, fine	1.50@1.82	1.72@2.02	.90@ .96
Islands, coarse	.90@ .92	.65@ .82	.44@ .48
Cametá	.90@ .98	.83@ .96	.51@ .53

Statistics of Para Rubber (Excluding Caucho).

	NEW YORK. Fine and Medium.	Coarse.	Total 1910.	Total 1909.	Total 1908.
Stocks, August 31..*tons*	146	25 =	171	156	129
Arrivals, September	504	426 =	930	1157	1166
Aggregating	650	451 =	1101	1313	1295
Deliveries, September ..	509	417 =	926	1171	1216
Stocks, September 30..	141	34 =	175	142	79

	PARA. 1910.	1909.	1908.	ENGLAND. 1910.	1909.	1908.
Stocks, August 31....*tons*	585	910	305	1275	295	375
Arrivals, September	1870	2020	2100	1000	855	710
Aggregating	2455	2930	2405	2275	1150	1085
Deliveries, September ...	1595	2175	1965	697	825	800
Stocks, September 30..	860	755	440	1578	325	285

	1910.	1909.	1908.
World's visible supply, September 30	3,350	1,637	1,831
Pará receipts, July 1 to September 30	4,830	4,720	4,870
Pará receipts of caucho, same dates	1,430	820	840
Afloat from Pará to United States, Sept. 30	347	none	1,060
Afloat from Pará to Europe, September 30	390	415	920

London.

OCTOBER 14.—Lewis & Peat report: Since our last we have had violent fluctuations in the price of fine hard, a considerable business being done early in the week at 6*s.* up to 7*s.* 1*d.*, and later down again to 6*s.* 2*d.*, closing at 6*s.* 1*d.*, sellers. Next auctions, October 18.

Rubber Scrap Prices.

LATE New York quotations—prices paid by consumers for carload lots, per pound—are slightly lower, as follows:

	October 1.	November 1.
Old rubber boots and shoes—domestic	10¼@10⅜	9⅞@10
Old rubber boots and shoes—foreign	9¾@ 9⅞	9⅝@ 9¾
Pneumatic bicycle tires	6¾@ 7	6¾@ 7
Automobile tires	8¾@ 9	8 @ 8⅛
Solid rubber wagon and carriage tires	9½@ 9¾	9¼@ 9½
White trimmed rubber	12 @12½	12 @12½
Heavy black rubber	6¼@ 6½	6¼@ 6½
Air brake hose	5¼@ 5⅜	5¼@ 5⅜
Garden hose	2¼@ 2½	2¼@ 2½
Fire and large hose	2⅞@ 3	2⅞@ 3
Matting	1⅛@ 1¼	1⅛@ 1¼

IMPORTS FROM PARA AT NEW YORK.

[The Figures Indicate Weight in Pounds.]

OCTOBER 1.—By the steamer *Rio de Janeiro*, from Pará:

	Fine.	Medium.	Coarse.	Caucho.	Total.
A. T. Morse & Co	100,500	2,000	77,100	..... =	179,600
Henderson & Korn	23,200	.....	13,800	..... =	37,000
L. Johnson & Co	25,300	.....	10,600	..... =	35,900
H. A. Astlett & Co	.....	.....	6,600	..... =	6,600
Total	149,000	2,000	108,100	..... =	259,100

OCTOBER 5.—By the steamer *Boniface*, from Manáos and Pará:

A. T. Morse & Co	144,500	25,800	81,000	400 =	251,700
New York Commercial Co	60,000	19,000	19,000	2,000 =	100,000
Poel & Arnold	30,700	18,300	31,400	..... =	80,400
Hagemeyer & Brunn	16,400	.....	.....	..... =	16,400
Henderson & Korn	14,300	.....	.....	..... =	14,300
William E. Peck & Co	1,100	.....	4,300	..... =	5,400
Total	267,000	63,100	135,700	2,400 =	468,200

OCTOBER 15.—By the steamer *Dunstan*, from Manáos and Pará:

A. T. Morse & Co	204,800	17,500	69,500	6,100 =	297,900
Poel & Arnold	68,200	16,100	30,000	400 =	114,700
New York Commercial Co	40,700	8,600	18,200	11,200 =	78,700
Henderson & Korn	45,000	.....	.....	..... =	45,000
Hagemeyer & Brunn	10,300	.....	.....	..... =	10,300
William E. Peck & Co	1,800	.....	4,600	..... =	6,400
Total	370,800	42,200	122,300	17,700 =	553,000

OCTOBER 24.—By the steamer *Clement*, from Manáos and Pará:

A. T. Morse & Co.	228,600	35,700	111,900	15,900=	392,100
Poel & Arnold	218,000	36,800	52,400	.....=	307,200
New York Commercial Co.	175,100	26,800	32,500	28,000=	262,400
Henderson & Korn	83,500	.....	34,400	.....=	117,900
L. Johnson & Co	50,000	7,500	20,200	.....=	77,700
Total	755,200	106,800	251,400	43,900=	1,157,300

PARA RUBBER VIA EUROPE.

POUNDS.

SEPT. 26.—By the *Baltic*=Liverpool:

Poel & Arnold (Fine)	45,000	
A. T. Morse & Co (Coarse)	11,500	56,500

SEPT. 28.—By the *Caronia*=Liverpool:

Poel & Arnold (Caucho)	33,500	
General Rubber Co. (Coarse)	25,000	
N. Y. Commercial Co. (Coarse)	10,000	68,500

SEPT. 29.—By the *Atrato*=Mollendo:

General Rubber Co. (Caucho)	11,500	
N. Y. Commercial Co. (Fine)	4,000	15,500

OCT. 1.—By the *Campania*=Liverpool:

N. Y. Commercial Co. (Coarse)	34,000	
A. T. Morse & Co. (Coarse)	11,000	45,000

OCT. 3.—By the *Celtic*=Liverpool:

Raw Products Co. (Coarse)		10,000

OCT. 10.—By the *Celtic*=Liverpool:

N. Y. Commercial Co. (Fine)	45,000	
Poel & Arnold (Fine)	33,500	
A. T. Morse & Co. (Coarse)	11,500	
Raw Products Co. (Coarse)	7,000	97,000

OCT. 10.—By the *Minnetonka*=London:

General Rubber Co. (Coarse)		7,000

OCT. 13.—By the *Carmania*=Liverpool:

Robinson & Co. (Fine)	22,500	
Poel & Arnold (Caucho)	11,000	
Poel & Arnold (Coarse)	25,000	58,500

OCT. 13.—By the *President Lincoln*=Hamburg:

W. L. Gough Co. (Fine)	10,000	
N. Y. Commercial Co. (Fine)	2,500	12,500

OCT. 17.—By the *Arabic*=Liverpool:

N. Y. Commercial Co. (Fine)	45,000	
Poel & Arnold (Fine)	5,500	50,500

OCT. 22.—By the *Campania*=Liverpool:

Poel & Arnold (Coarse)	50,000	
A. T. Morse & Co. (Caucho)	33,500	
N. Y. Commercial Co. (Caucho)	11,000	94,500

OTHER NEW YORK ARRIVALS.

CENTRALS.

[*This sign, in connection with imports of Centrals, denotes Guayule rubber.]

POUNDS.

SEPT. 23.—By *El Cid*=Galveston:

Charles T. Wilson		*7,000

SEPT. 23.—By the *Origen*=Honduras:

A. Rosenthal & Sons	3,000	
George A. Alden & Co	1,000	4,000

SEPT. 23.—By the *Matanzas*=Tampico:

Ed Maurer		*67,000

SEPT. 24.—By the *Monterey*=Frontera:

Harburger & Stack	4,500	
H. Marquardt & Co	2,500	
E. Steiger & Co	2,000	9,000

SEPT. 26.—By the *Vaderland*=Antwerp:

Robert Badenhop		5,500

SEPT. 26.—By the *Allemannia*=Colombia:

Lionel Hagenaers & Co	3,000	
R. Del Castillo & Co	3,000	
Suzarte & Whitney	1,500	
Isaac Brandon & Bros	1,500	
Gillespie Bros. & Co	1,000	10,000

SEPT. 26.—By *El Dorado*=Galveston:

Continental-Mexican Rubber Co		*86,000

SEPT. 27.—By the *Merida*=Vera Cruz:

H. Marquardt & Co	5,000	
International Products Co	1,000	
American Trading Co	1,000	7,000

SEPT. 28.—By the *Allianca*=Colon:

G. Amsinck & Co	6,500	
Isaac Brandon & Bros	5,000	
Mecke & Co	3,000	
J. Sambrada Co	2,500	
Wessels, Kulenkampff & Co	2,500	
Maldonado & Co	2,000	
Pablo Calvet & Co	2,000	
Dumarest Bros. & Co	1,500	
West Coast Rubber Co	1,000	
Gillespie Bros. & Co	1,000	27,000

SEPT. 29.—By the *Atrato*=Colombia:

A. M. Capen's Sons	8,000	
W. R. Grace & Co	5,500	
J. Sambrada Co	3,500	
Maitland, Coppell & Co	3,500	
Kunhardt & Co	2,000	
Caballero & Blanco	2,000	
Gravenhorst & Co	1,500	
G. Amsinck & Co	1,000	
H. Schutte, Giesecken & Co	1,000	28,000

OCT. 1.—By *El Norte*=Galveston:

Continental-Mexican Rubber Co.	*150,000	
E. S. Churchill	*17,000	*167,000

OCT. 1.—By the *Rio de Janeiro*=Maceio:

A. D. Hitch & Co		7,000

OCT. 3.—By the *Alleghany*=Colombia:

Maitland, Coppell & Co	1,300	
Pablo Calvet & Co	2,500	
Oglesias & Martinez	2,500	
A. Held	1,000	19,000

OCT. 3.—By the *Virgilancia*=Tampico:

N. Y. Commercial Co.	*135,000	
Ed. Maurer	*50,000	
Poel & Arnold	*40,000	*225,000

OCT. 3.—By the *Creole*=New Orleans:

Robinson & Co	2,500	
A. N. Rotholz	2,000	
G. Amsinck & Co	2,000	6,500

OCT. 5.—By the *Verdi*=Bahia:

J. H. Rossbach & Bros	45,000	
A. Hirsch & Co	33,000	78,000

OCT. 5.—By *El Alba*=Galveston:

Continental-Mexican Rubber Co		*150,000

OCT. 5.—By the *Colon*=Colon:

G. Amsinck & Co	12,500	
L. Johnson & Co	6,500	
J. Sambrada Co	5,000	
George A. Alden & Co	2,500	
Dumarest Bros. & Co	2,000	
H. Marquardt & Co	1,500	30,000

OCT. 6.—By *El Mar*=Galveston:

Continental-Mexican Rubber Co		*75,000

OCT. 6.—By the *Prinz Joachin*=Colon:

G. Amsinck & Co	5,500	
Pablo Calvet & Co	2,000	
Iglesias, Lobo Co	1,500	
A. Held	1,500	
Suzarte & Whitney	1,000	
A. Rosenthal & Sons	1,000	
New York Commercial Co	1,000	
Isaac Brandon & Bros	1,000	14,500

OCT. 6.—By the *Bluecher*=Hamburg:

Ed. Maurer		*27,000

OCT. 8.—By the *Esperanza*=Vera Cruz:

Harburger & Stack	2,000	
Chilean Export Co	2,000	
Scholz & Marturet	1,000	
E. N. Tibbals & Co	1,000	
J. W. Wilson & Co	1,000	
E. Steiger & Co	1,000	8,000

OCT. 10.—By the *Bayamo*=Tampico:

Ed. Maurer	*85,000	
New York Commercial Co	*34,000	*119,000

OCT. 11.—By the *Albenga*=Colombia:

G. Amsinck & Co	6,000	
Kunhardt & Co	3,500	
A. Javanillo Co	3,000	
Gravenhorst & Co	2,000	
Lionel Hagenaers & Co	1,000	15,500

OCT. 11.—By *El Monte*=Galveston:

Continental-Mexican Rubber Co		*85,000

OCT. 11.—By the *Momus*=New Orleans:

A. T. Morse & Co	2,500	
A. N. Rotholz	2,500	5,000

OCT. 13.—By the *Carmania*=Liverpool:

Poel & Arnold		15,000

OCT. 13.—By the *Advance*=Colon:

Isaac Brandon & Bros	9,500	
Herbst Brothers	4,000	
G. Amsinck & Co	3,500	
Suzarte & Whitney	2,500	
L. Johnson & Co	2,000	
R. Del Gallego & Co	1,000	22,500

OCT. 13.—By *El Siglo*=Galveston:

Continental-Mexican Rubber Co		*110,000

OCT. 14.—By the *Mexico*=Frontero:

E. Steiger & Co	5,000	
Harburger & Stack	2,000	
Maldonado & Co	1,000	
For Havre	5,000	13,000

OCT. 15.—By *El Cid*=Galveston:

Continental-Mexican Rubber Co		*70,000

OCT. 15.—By the *Dunstan*=Ceara:

G. Amsinck & Co	47,000	
J. H. Rossbach & Bros	20,000	67,000

OCT. 17.—By the *Seguranca*=Tampico:

Ed. Maurer	*80,000	
New York Commercial Co	*34,000	
For Hamburg	*6,000	*120,000

OCT. 17.—By the *American*=Mexico:

George A. Alden & Co		11,500

OCT. 17.—By the *Panama*=Colon:

G. Amsinck & Co	23,000	
Isaac Brandon & Bros	9,000	
Mecke & Co	2,500	
Dumarest Bros. & Co	2,000	
R. G. Barthold	1,500	38,000

OCT. 18.—By *El Paso*=Galveston:

Continental-Mexican Rubber Co.	*75,000	
Charles T. Wilson	*11,000	*86,000

OCT. 18.—By the *Altai*=Colombia:

Maitland, Coppell & Co	7,000	
De Sola Bros. & Pardo	3,500	
Lionel Hagenaers & Co	1,500	
Caballero & Blanco	1,500	13,500

OCT. 18.—By the *Asiatic*=Bahia:

J. H. Rossbach & Bros		35,000

OCT. 19.—By the *Prinz August Wilhelm*=Colon:

A. Santos & Co	13,500	
A. Held	2,500	
Isaac Brandon & Bros	1,500	
Delima Cortissoz & Co	1,000	
Gillespie Bros. & Co	1,000	19,500

OCT. 21.—By the *Creole*=New Orleans:

A. T. Morse & Co	5,000	
A. N. Rotholz	3,500	
Robinson & Co	2,500	
Eggers & Heinlein	2,500	
New York Commercial Co	1,000	14,500

OCT. 22.—By the *Byron*=Bahia:

J. H. Rossbach & Bros	15,000	
New York Commercial Co	5,000	
A. Hirsch & Co	1,500	21,500

OCT. 24.—By the *Allianca*=Colon:

Piza, Nephews & Co	4,500	
R. Fabien & Co	1,500	6,000

AFRICAN.

POUNDS.

SEPT. 19.—By the *Finland*=Antwerp:

Robert Badenhop		2,000

SEPT. 23.—By the *Lusitania*=Liverpool:

A. T. Morse & Co	3,500	
George A. Alden & Co	2,500	6,000

SEPT. 24.—By the *Teutonic*=Liverpool:

Robert Badenhop		2,000

SEPT. 26.—By the *Kais'n Aug. Victoria*=Hamburg:

George A. Alden & Co	40,000	
A. T. Morse & Co	22,500	
Livesey & Co	6,500	
Raw Products Co	6,000	75,000

SEPT. 26.—By the *Vaderland*=Antwerp:

A. T. Morse & Co	5,500	
Robert Badenhop	10,800	16,300

SEPT. 28.—By the *Caronia*=Liverpool:

General Rubber Co	55,000	
George A. Alden & Co	3,000	58,000

SEPT. 29.—By the *Pennsylvania*=Hamburg:

George A. Alden & Co	45,000	
A. T. Morse & Co	45,000	
Poel & Arnold	20,000	
W. L. Gough Co	25,000	
Rubber Trading Co	9,000	
Robert Badenhop	7,000	151,000

OCT. 1.—By the *Campania*=Liverpool:

General Rubber Co		20,000

OCT. 3.—By the *Celtic*=Liverpool:

George A. Alden & Co	25,000	
W. L. Gough Co	5,000	30,000

RUBBER FLUX

No. 17. Particularly adapted to softening material for tubing machine. Almost universally used for waterproofing wire.

No. 48. For fluxing pigments in compounding. A valuable adjunct to the manufacture of moulded goods as it DOES NOT BLOW UNDER CURE.

WRITE FOR PRICES.

Massachusetts Chemical Co., Walpole, Mass.

SOLE FACTORS—
WALPOLE RUBBER WORKS
WALPOLE VARNISH WORKS
ELECTRIC INSULATION LABORATORY

THEODORE HOFELLER & CO.

BUFFALO, N. Y.

LARGEST DEALERS IN

OLD RUBBER

IN THE WORLD

MINERAL RUBBER

One pound of Para and one pound of Hydro-Carbon is not as good as two pounds of Para, but mineral rubber for all black colored rubber goods is the BEST rubber substitute money will buy irrespective of what the substitute costs. Replace oil substitutes with Maltha Hydro-Carbon, effecting the large saving in difference in the cost of these two articles, and you really increase the quality of your compound, BUT don't add mineral rubber to a compound already loaded to the gunwales with oil substitute; simply replace the substitute with Maltha Hydro-Carbon and note improvement. There's one best M. R. Maltha Hydro-Carbon. Write today, now, for free working sample.

AMERICAN WAX COMPANY

BOSTON, MASSACHUSETTS

Boston New York

BOSTON YARN CO.

86 Worth Street, New York

MOTOR TIRE FABRICS

"Lowell Weaving Co."

Yarns for every purpose
Sheetings

Mechanical Ducks
Osnaburgs

"Passaic Cotton Mills"

Auto Top Ducks
Specialties in Weaving

ED. MAURER

Representing the Madero interests of Mexico for

Guayule Rubber

PARRA DURANGO

MADERO LEON

BRANDS

BORNEOS

Sole agent for U. S. and Canada of the well known brands

FFF, FF, GS and SM.

Headquarters for

Surinam and Demerara Sheet Balata
Venezuelan Block Balata

Ceylon Plantation Rubber

---

97 WATER STREET . NEW YORK

OCT. 3.—By the *Lapland*=Antwerp:

Poel & Arnold	45,000	
Rubber Trading Co	22,500	
A. T. Morse & Co	27,000	
George A. Alden & Co	7,000	
Livesey & Co	4,500	106,000

OCT. 6.—By the *Bluecher*=Hamburg:

A. T. Morse & Co	30,000	
W. L. Gough Co	8,000	
George A. Alden & Co	6,000	..
Robert Badenhop	4,500	48,500

OCT. 8.—By the *Caroline*=Havre:

A. T. Morse & Co	70,000	
Poel & Arnold	30,000	
George A. Alden & Co	2,500	102,500

OCT. 10.—By the *Cedric*=Liverpool:

General Rubber Co	56,000	
W. L. Gough Co	15,000	
Rubber Trading Co	6,500	
George A. Alden & Co	2,500	
Livesey & Co	2,500	82,500

OCT. 10.—By the *Cleveland*=Hamburg:

A. T. Morse & Co	125,000	
George A. Alden & Co	45,000	
Raw Products Co	8,000	
Robert Badenhop	5,500	183,500

OCT. 11.—By the *Kroonland*=Antwerp:

Livesey & Co	13,500	
Rubber Trading Co	11,500	25,000

OCT. 13.—By the *St. Laurent*=Havre:

General Rubber Co	93,000	
Raw Products Co	3,000	96,000

OCT. 13.—By the *President Lincoln*=Hamburg:

W. L. Gough Co		7,000

OCT. 14.—By the *Koenig Albert*=Genoa:

W. L. Gough Co		5,500

OCT. 15.—By the *Amerika*=Hamburg:

A. T. Morse & Co	13,000	
Livesey & Co	8,000	
W. L. Gough Co	4,500	25,500

OCT. 17.—By the *Arabic*=Liverpool:

General Rubber Co	56,000	
A. T. Morse & Co	20,000	76,000

OCT. 20.—By the *President Grant*=Hamburg:

W. L. Gough Co	35,000	
George A. Alden & Co	40,000	
General Rubber Co	20,000	
Rubber Trading Co	11,500	
Robert Badenhop	11,000	
A. T. Morse & Co	11,500	
Livesey & Co	5,500	134,500

OCT. 22.—By the *Campania*=Liverpool:

Poel & Arnold	25,000	
General Rubber Co	13,500	
George A. Alden & Co	4,500	
Livesey & Co	2,000	
Raw Products Co	2,500	47,500

EAST INDIAN.

[*Denotes plantation rubber.]

SEPT. 24.—By the *Lusitania*=Liverpool:

	Pounds.
Rubber Import Co	5,500

SEPT. 24.—By the *St. Louis*=London:

New York Commercial Co	*25,000	
Poel & Arnold	*11,000	
Malaysian Rubber Co	18,000	54,000

SEPT. 26.—By the *Vaderland*=Antwerp:

A. T. Morse & Co	*9,000

SEPT. 26.—By the *Kybfels*=Colombo:

A. T. Morse & Co	*36,000	
New York Commercial Co	*33,000	*69,000

SEPT. 26.—By the *Minnewaska*=London:

A. T. Morse & Co	*33,500	
Rubber Trading Co	4,500	
Robinson & Co	11,000	49,000

SEPT. 28.—By the *Caronia*=Liverpool:

Livesey & Co		11,500

SEPT. 28.—By the *Oceanic*=London:

New York Commercial Co	*56,000	
Poel & Arnold	*11,500	*67,500

OCT. 3.—By the *New York*=London:

A. T. Morse & Co	*11,000	
New York Commercial Co	*9,500	
Poel & Arnold	*7,000	*27,500

OCT. 3.—By the *Lapland*=Antwerp:

A. T. Morse & Co		*25,000

OCT. 4.—By the *Minneapolis*=London:

A. T. Morse & Co	*15,000	
Robinson & Co	15,000	
Raw Products Co	5,000	35,000

OCT. 6.—By the *Drachenfels*=Colombo:

New York Commercial Co	*60,000	
A. T. Morse & Co	*55,000	*115,000

OCT. 6.—By the *Majestic*=London:

New York Commercial Co	*29,000	
Poel & Arnold	*11,500	
A. T. Morse & Co	*5,500	
Henderson & Korn	*4,500	*50,500

OCT. 10.—By the *St. Paul*=London:

New York Commercial Co		*25,000

OCT. 10.—By the *Kroonland*=Antwerp:

A. T. Morse & Co	*25,000	
Robert Badenhop	3,500	28,500

OCT. 10.—By the *Minnetonka*=London:

A. T. Morse & Co	*34,000	
Malaysian Rubber Co	35,000	
General Rubber Co	*11,000	
Henderson & Korn	*7,000	
Ed. Maurer	*5,500	
Raw Products Co	*3,500	
General Rubber Co	22,500	118,500

OCT. 13.—By the *Adriatic*=London:

New York Commercial Co	*10,000	
Poel & Arnold	*11,000	*21,000

OCT. 13.—By the *Ghazee*=Singapore:

Heabler & Co	30,000	
Poel & Arnold	20,000	
W. L. Gough Co	15,000	
Ed. Maurer	20,000	85,000

OCT. 13.—By the *Katuna*=Colombo:

New York Commercial Co	*30,000	
A. T. Morse & Co	*11,000	*41,000

OCT. 15.—By the *Philadelphia*=London:

New York Commercial Co	*5,000	
Poel & Arnold	*9,000	
Henderson & Korn	*2,500	*16,500

OCT. 17.—By the *Arabic*=Liverpool:

Rubber Import Co		26,000

OCT. 19.—By the *Mesaba*=London:

General Rubber Co	*80,000	
Ed. Maurer	*4,500	
A. T. Morse & Co	*3,500	
Robinson & Co	45,000	133,000

OCT. 20.—By the *Teutonic*=London:

New York Commercial Co	*25,000	
Poel & Arnold	*4,500	*29,500

OCT. 20.—By the *President Grant*=Hamburg:

George A. Alden & Co		33,000

OCT. 22.—By the *St. Louis*=London:

New York Commercial Co	*25,000	
Henderson & Korn	*15,000	
Henderson & Korn	5,000	45,000

GUTTA-JELUTONG.

OCT. 13.—By the *Ghazee*=Singapore:

	Pounds.	
Haebler & Co	1,150,000	
L. Littlejohn & Co	700,000	
W. L. Gough Co	500,000	
Poel & Arnold	225,000	
Robinson & Co	155,000	
Winter & Smillie	100,000	
George A. Alden & Co	55,000	2,885,000

GUTTA-PERCHA.

SEPT. 29.—By the *Pennsylvania*=Hamburg:

	Pounds.
Robert Soltau & Co	9,000

OCT. 13.—By the *Ghazee*=Singapore:

W. L. Gough Co	45,000	
Heabler & Co	45,000	90,000

OCT. 17.—By the *Wray Castle*=Singapore:

L. Littlejohn & Co		45,000

OCT. 20.—By the *President Grant*=Hamburg:

Robert Soltau & Co		9,000

BALATA.

SEPT. 27.—By the *Saramaca*=Demerara:

	Pounds.	
Ed. Maurer	6,000	
Middleton & Co	2,000	
J. A. Pauli & Co	2,000	
George A. Alden & Co	1,500	11,500

OCT. 4.—By the *Guiana*=Demerara:

George A. Alden & Co	15,500	
American Trading Co	2,000	
Frame & Co	2,000	19,500

OCT. 7.—By the *Grenada*=Bolivar:

G. Amsinck & Co		11,000

OCT. 13.—By the *Marowijne*=Demerara:

Suzarte & Whitney	4,500	
Middleton & Co	2,500	7,000

OCT. 18.—By the *Coppename*=Trinidad:

J. A. Pauli & Co	3,000	
Graham, Hinkley & Co	1,000	4,000

OCT. 19.—By the *Korona*=Demerara:

George A. Alden & Co		15,000

CUSTOM HOUSE STATISTICS.

PORT OF NEW YORK—SEPTEMBER.

Imports:	Pounds.	Value.
India-rubber	5,525,690	$6,671,349
Balata	60,040	38,705
Gutta-percha	33,049	12,684
Gutta-jelutong (Pontianak)	3,298,585	200,358
Guayule	678,811	348,453
Total	9,596,175	$7,271,549
Exports:		
India rubber	75,551	$130,639
Balata	46,432	44,394
Gutta-percha	.....	.....
Guayule	.....	.....
Reclaimed rubber	2,279	228
Rubber scrap, imported	1,793,549	$166,830
Rubber scrap, exported	164,225	19,416

BOSTON ARRIVALS.

SEPT. 14.—By the *Columbia*=London:

	Pounds.
George A. Alden & Co. (Ceylon)	11,200

SEPT. 22.—By the *Wyneric*=Singapore:

State Rubber Co	13,000

PARA EXPORTS OF INDIA RUBBER, AUGUST, 1910 (In KILOGRAMS).

	NEW YORK.					EUROPE.					
EXPORTERS.	Fine.	Medium.	Coarse.	Caucho.	TOTAL.	Fine.	Medium.	Coarse.	Caucho.	TOTAL.	TOTAL.
Gruner & Co	56,500	7,990	56,957	24,090	145,537	17,104	4,010	1,069	7,740	29,923	175,460
E. Pinto Alves & Co	110,840	1,700	98,670	.....	211,210	15,130	.....	.....	1,320	16,450	227,660
Adelbert H. Alden, Ltd	47,574	4,271	37,687	1,220	90,752	24,990	5,270	13,860	660	44,780	135,532
J. Marques	8,160	1,190	8,580	.....	17,930	14,620	2,550	15,180	63,690	96,040	113,970
R. Suarez & Co	.....	.....	.....	.....	.....	24,875	.....	9,855	15,362	50,092	50,092
Scholz, Hartje & Co	.....	.....	14,125	10,830	24,955	2,550	170	660	1,650	5,030	29,985
Gordon & Co	.....	.....	.....	.....	.....	11,969	1,206	1,935	5,490	20,600	20,600
R. O. Ahlers & Co	.....	.....	.....	.....	.....	11,662	.....	3,566	4,675	19,903	19,903
Alves Braga Rub. Est. & Trad. Co	.....	.....	.....	.....	.....	12,271	1,663	1,369	940	16,243	16,243
Pires Teixeira & Co	3,230	.....	2,310	.....	5,540	.....	.....	.....	.....	.....	5,540
Sundries	11,730	5,610	9,570	.....	26,910	9,690	1,530	5,880	13,200	30,300	57,210
Itacoatiara direct	.....	.....	.....	.....	.....	4,912	1,000	2,764	100	8,776	8,776
Manáos direct	174,635	51,265	88,329	59,268	373,497	404,330	42,114	18,355	71,895	536,694	910,191
Iquitos direct	.....	.....	.....	.....	.....	12,268	1,398	5,181	162,913	181,760	181,760
Total, August, 1910	412,669	72,026	316,228	95,408	896,331	566,371	60,911	79,674	349,635	1,056,591	1,952,922
Total, July, 1910	221,719	30,220	268,507	181,195	701,641	480,197	54,589	164,570	380,247	1,079,603	1,781,244

INDIA RUBBER WORLD

Vol. 43 NOVEMBER 1, 1910. No. 2

TABLE OF CONTENTS.

Editorial: Page.
To Solve the *Castilloa* Problem ... 41
Food and Amazon Rubber ... 41
The American Mackintosh Trade ... 42
Is Senator Aldrich in This? ... 42
Is This a New "Rubber Trust?" ... 42
Minor Editorials ... 42
John Hinchley Hart ... 44
[With Portrait.]
Advance of the Motor Truck ... 44
The Editor's Book Table ... 45
An American Planting on the Amazon ... *David B. Riker* 46
[With 8 Illustrations.]
Points on the Cotton Situation ... 48
The India-Rubber Trade in Great Britain ... *Our Regular Correspondent* 50
[Gutta-Jelutong. Rubber and the Public. Holiday Notes. Reformed Rubber. Fossil Flour. Tire Notes. Obituary.]
Insulated Wires for Motor Cars ... *Jonathan Milborne* 51
The India Rubber World "Castilloa" Trophy ... 52
[With an Illustration.]
Recent Patents Relating to Rubber ... 55
[United States. Great Britain. France.]
Miscellaneous:
Distinguishing Rubber Grades ... 43
Next Year's Automobile Production ... 43
Balata in Rubber Goods ... *Wilmer Dunbar* 49
Too Cold, "Perhaps," for Guayule ... 49
Larger Kasai Rubber Profits ... 53
New York Electrical Show ... 53
Madeira-Mamoré Railway ... 53
A Brazilian View of the Rubber Craze ... 54
New Trade Publications ... 54
The Rubber Trade in Canada ... 56
The Pan American Union ... 56
An Old Gutta-percha Pipe ... 61
Rubber Factory for Brazil ... 57
Intercontinental Rubber Co ... 62
Rubber Production in Bolivia ... 63
An Early Balloon Hoax ... *(Illustrated)* 63
The Ceylon Rubber Market ... 66
Obituary ... *(With Portrait)* 66
India-Rubber Goods in Commerce ... 74
New Rubber Goods in the Market ... 64
["Wearever" Molded Water Bottle. Rubberized Leather Football Covers. Walpole Rubber Heels for Horses. Woman's White Rubber Coat. The "Flash" Skirt Marker. Aeroplane Clincher Tires. The O'Kanus Face Water Bottle. Rubber Goods in Aviation. The Baldwin Aeroplane Fabric. Aviation Suits. French Aviation Clothing Competition. Cravenette Poplin. Novelties in Rubber Footwear. An Improvement on the Rubber Force Cup.]
[With 7 Illustrations.]
The Rubber Trade in San Francisco ... *Our Correspondent* 57
The Rubber Trade in Cincinnati ... *Our Correspondent* 58
[With 4 Illustrations.]
The Rubber Trade in Akron, Ohio ... *Our Correspondent* 60
[With an Illustration.]
The Rubber Trade in Chicago ... *Our Correspondent* 62
Automobile and Tire Notes ... 67
Tire Making by Machinery ... 67
[With 2 Illustrations.]
News of the American Rubber Trade ... 68
[With an Illustration.]
Review of the Crude Rubber Market ... 71

INDIA-RUBBER GOODS IN COMMERCE.

EXPORTS FROM THE UNITED STATES.

OFFICIAL statement of the values of exports of manufactures of india-rubber and gutta-percha for the month of August, 1910, and for the first eight months of five calendar years:

MONTHS.	Belting, Packing and Hose.	Boots and Shoes.	All Other Rubber.	TOTAL.
August, 1910	$212,754	$333,915	$525,580	$1,072,249
January-July	1,218,628	1,013,834	3,273,268	5,505,730
Total, 1910	$1,431,382	$1,347,749	$3,798,848	$6,577,979
Total, 1909	1,164,699	872,074	2,678,534	4,715,307
Total, 1908	813,383	927,084	2,371,374	4,111,841

The above heading, "All Other Rubber," for the last two months includes the following details relating to Tires:

MONTHS.	For Automobiles.	All Other.	TOTAL.
July ..... *value*	$146,080	$56,096	$202,176
August	151,468	71,486	222,954

These are the first official statistics of the exports of American made tires. It will be seen that, of the miscellaneous exports of rubber in July, 42 per cent. consisted of tires, and in August 39 per cent.

SHIPMENTS TO NON-CONTIGUOUS TERRITORIES.

For the fiscal year ended June 30, 1910:

TERRITORIES.	Belting. Packing and Hose.	Boots and Shoes.	All other Rubber.	TOTAL.
Alaska	$60,842	$204,996	$24,872	$290,710
Hawaii	53,419	11,161	163,215	227,795
Porto Rico	9,129	2,031	104,499	115,659
Philippines	52,680	3,849	99,528	156,057
Total	$176,070	$222,037	$392,114	$790,221
Total, 1908-09	190,908	194,976	264,722	650,606
Total, 1907-08	162,602	235,044	217,801	615,447
Total, 1906-07	197,508	215,630	167,488	580,626
Total, 1905-06	164,606	179,210	151,260	495,260

IMPORTS OF RUBBER GOODS INTO CHINA.

A STATEMENT in *Gummi-Zeitung* on the trade of China for 1908 contains the following details regarding the value of rubber and allied goods imported, expressed in Haikwan taels [=68 cents gold]:

Boots and shoes	67,240
Other rubber goods not specified	73,338
Machinery belting	109,078
Asbestos	142,994

The number of pairs of rubber footwear imported is stated at 82,233 pairs, whereof Germany supplied 311 pairs.

Netherlands Imports of Rubber (Official.)

INDIA-RUBBER.

YEARS.	Imports.	Exports.	Net Imports.
1901 ..... *kilos*	1,686,664	1,351,272	335,392
1902	1,886,815	1,607,918	278,897
1903	2,005,892	1,465,561	540,331
1904	2,436,386	1,813,767	622,619
1905	3,014,348	2,613,062	401,286
1906	3,714,900	2,542,562	1,172,338
1907	3,693,547	1,869,303	1,824,244
1908	2,958,641	1,711,877	1,246,764
Total	21,397,193	14,975,322	6,421,871

GUTTA-PERCHA.

YEARS.	Imports.	Exports.	Net Imports.
1901 ..... *kilos*	1,352,522	836,752	327,245
1902	885,421	1,073,946	
1903	1,270,995	932,879	338,116
1904	896,727	792,859	103,868
1905	1,310,810	955,812	354,998
1906	2,500,379	2,160,751	339,628
1907	2,420,632	1,863,739	439,251
1908	1,314,168	1,431,810	
Total	11,951,654	10,048,548	1,903,106

During three years the importations of balata aggregated: 326,200 kilos in 1906; 444,000 kilos in 1907, and 430,000 kilos in 1908.